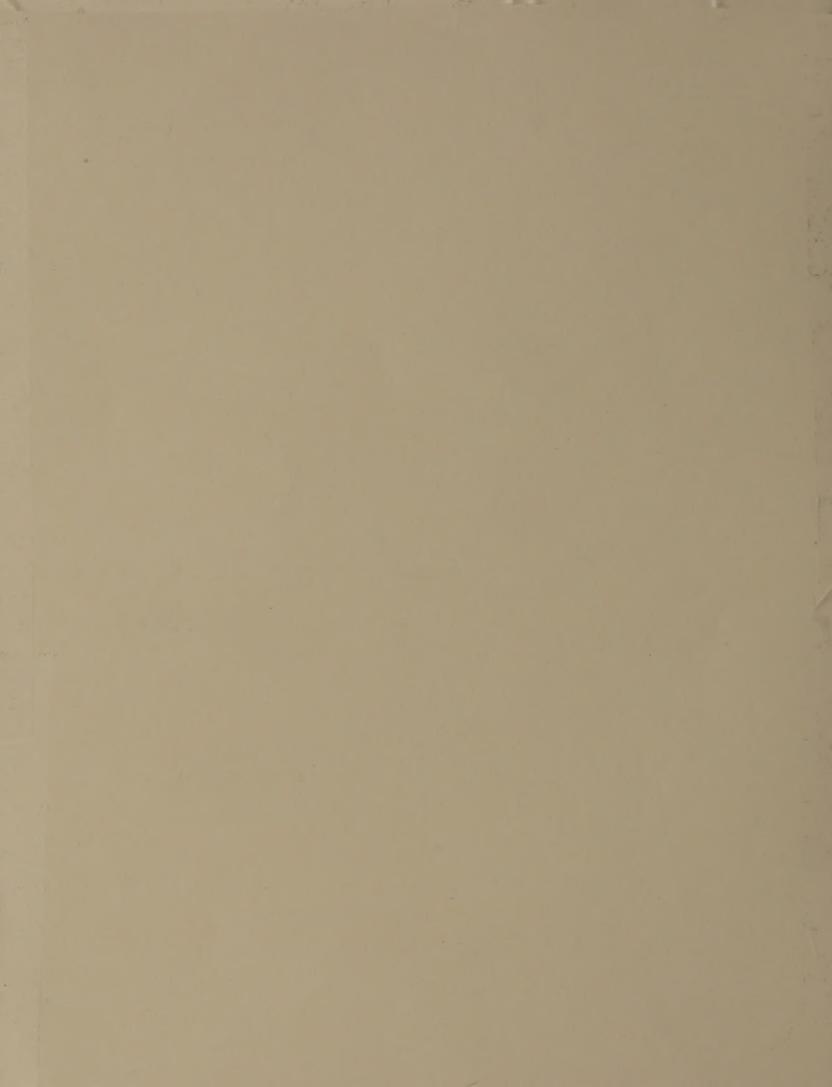
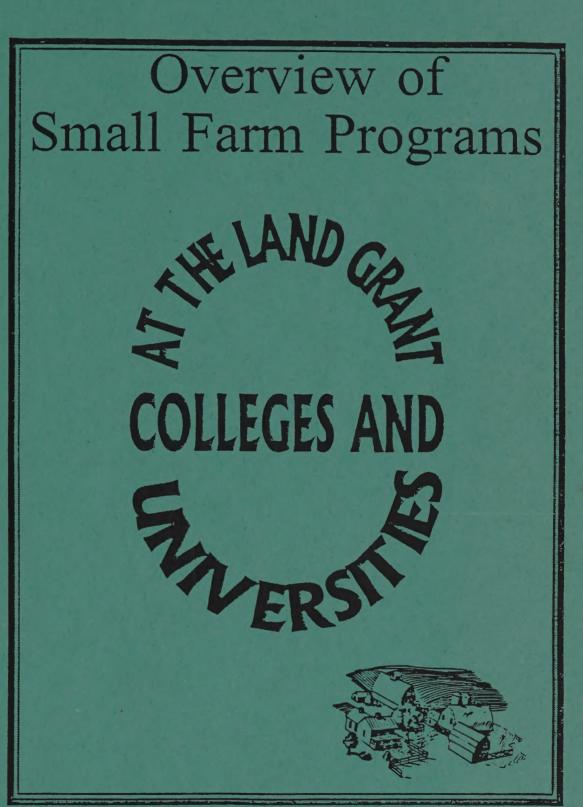
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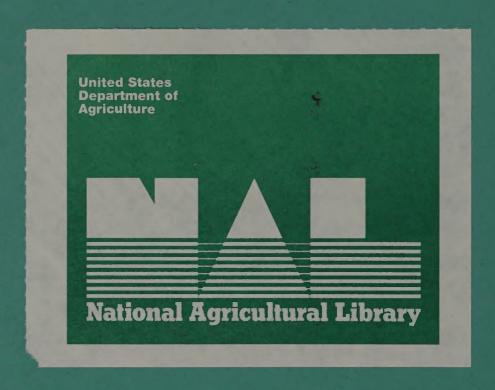


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Department of
Agriculture

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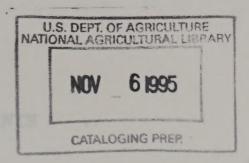


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FOREWORD



This overview report on Small Farm Programs at the Land Grant Colleges and Universities is a compilation which attempts to share ideas, on-going efforts, and program descriptions at the 1890 and 1862 Land Grant Institutions. The intent of this report is also to reduce duplication in efforts and to provide information on how the Cooperative Extension System in partnership with the Cooperative State Research, Education, and Extension Service-USDA delivers programs and services to the small scale farmer and rancher at the local level. It is noted in this report that not all the Land Grant schools have programs specifically targeted at small scale farms, however, these schools do have a wide range of programs and services that benefit small farms.

Information contained in this report was provided by Farm Management Specialists and Extension Educators. The leadership that they have given to this effort is recognized at the Federal level. Continued support of this program will assist the small farmer in meeting major needs in the areas of effective recordkeeping, management, and marketing strategies.

Although the viability and survival of small farms is a rural issue in most states, there is still substantial disagreement on the definition of small farms. For example, the traditional use of gross income receipts and size of holdings have been criticized as inappropriate measures. The working definition for this report is found in the 1981 Farm Bill (Public Law 97-98). That definition states "Small farm means any farm (1) producing family net income from all sources (farm and non-farm) below the median non-metropolitan income of the State; (2) operated by a family dependent on farming for a significant though not necessarily a majority of its income; and (3) on which family members provide most of the labor and management."

Compiled by:

Denis Ebodaghe

National Program Leader, Small Farms/Soil Science
USDA/Cooperative State Research, Education, and Extension ServicePlant and Animal Production, Protection, and Processing Division

Telephone: 202-401-4385

Fax: 202-401-5179

Email: debodaghe@reeusda.gov

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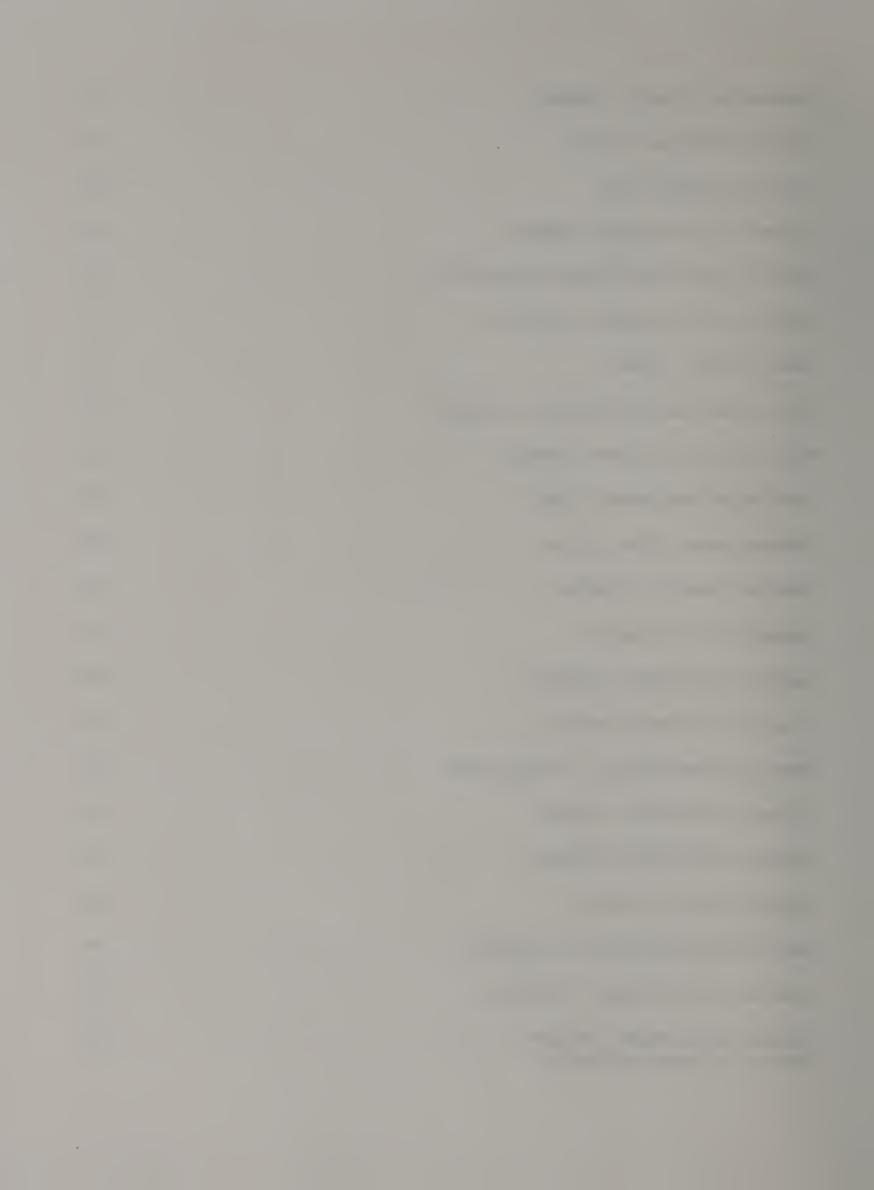
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ACKNOWLEDGEMENTS

Overview of Small Farm Programs at the 1890 and 1862 Land Grant Institutions was compiled because of a need to foster an active exchange of ideas about programs and services and to lay some foundation to work with one another.

Support and guidance was given by Edward M. Wilson, Deputy Administrator, Plant and Animal Production, Protection, and Processing Division, USDA/Cooperative State Research, Education, and Extension Service (CSREES); John Bottum, Associate Deputy Administrator-USDA/CSREES-PAPPP, and J. Preston Jones, the Unit Coordinator of USDA/CSREES-Plant Production.

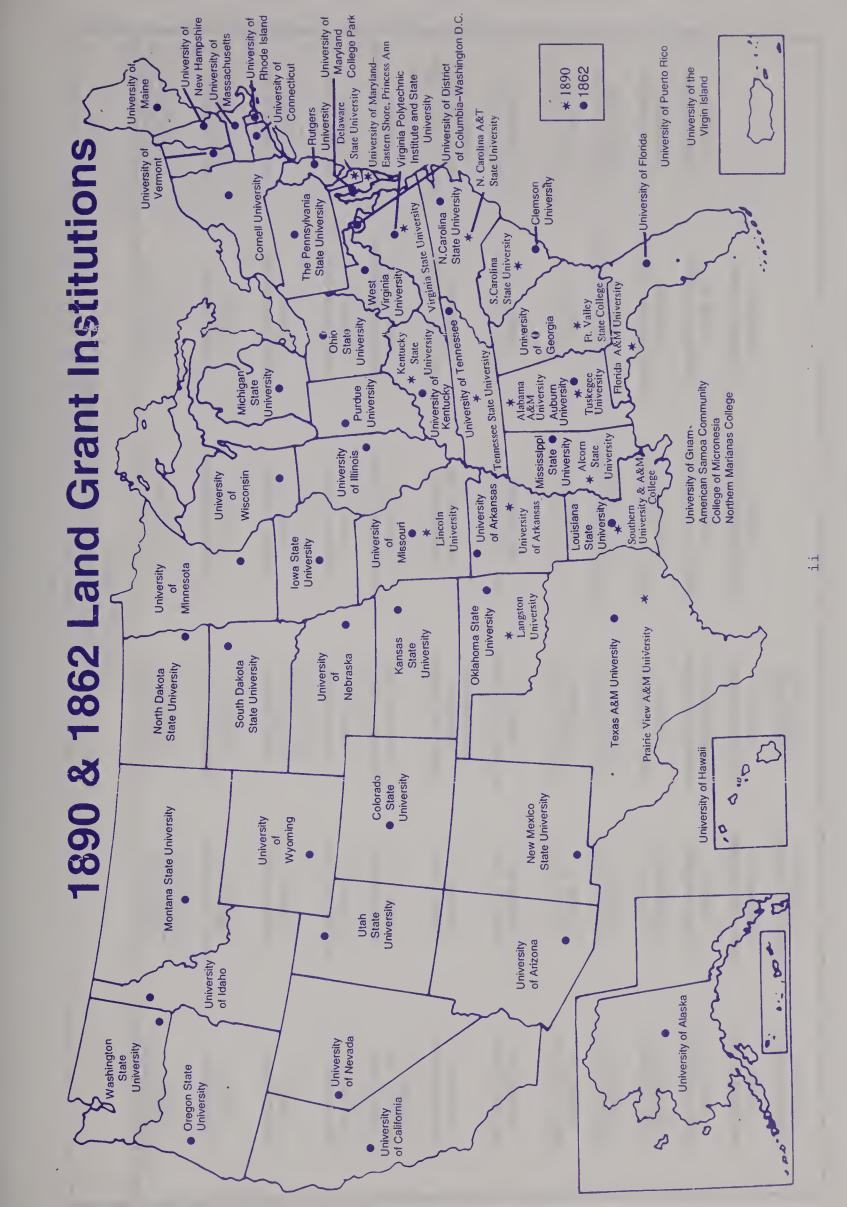
The contribution of the State Extension Farm Management specialists, Extension Educators and Administrative staff is gratefully acknowledged. This report will not have been adequately prepared without their input. Ms. Lauren Caulfield and Ms. Joan White are cited for their diligent work in preparing this document.

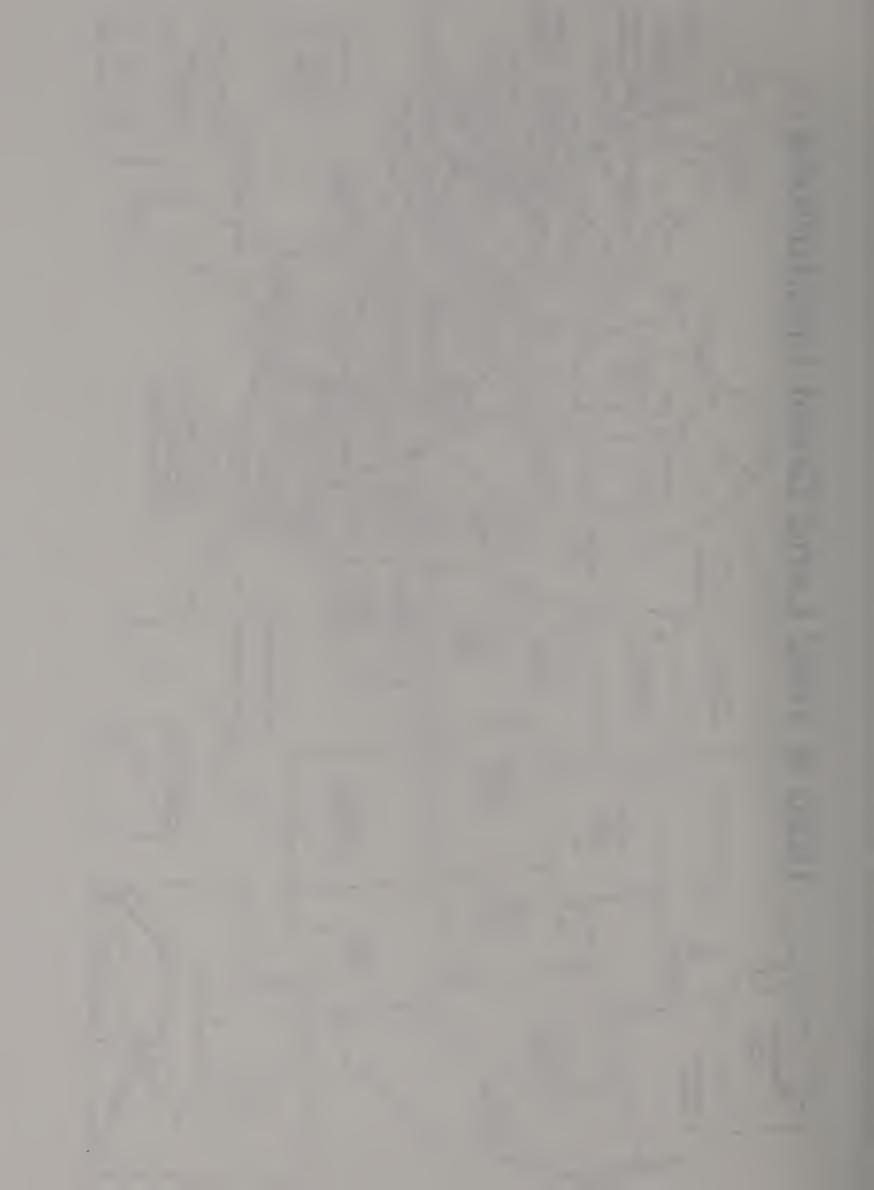
Many thanks to John Oidtman, Journalist and Rod Dent, Graphic Artist, of the Cooperative Extension of Lincoln University, Jefferson City, Missouri, for providing the map used in this report and to the Cooperative Extension at Oregon State University, Corvallis, Oregon for providing the small farm logo.

It is hoped that this report will have a lasting impact on Cooperative Extension Service programming efforts and, as a result, benefit small and part-time farmers.

Denis Ebodaghe
National Program Leader, Small Farms/Soil Science
USDA/CSREES-Plant and Animal Production, Protection,
and Processing Division
June 20, 1995







Cooperative Extension System Land-Grant Institutions (1862 and 1890)

Ohio State University Prairie View A&M University Columbus, OH Prairie View, TX	Langston University Texas A&M University Langston, OK College Station, TX	Oklahoma State University Utah State University Stillwater, OK Logan, UT	Oregon State University University of Vermont Corvalits, OR Burlington, VT	Pennsylvania State University University of the Virgin Islands University Park, PA St Crolx, VI	University of Puerto Rico Virginia Polytechnic Institute Mayaguez, PR and State University Biacksburg, VA	
University of Misssouri Obio State Columbia, MO Columb	Montana State University Langston Bozoman, MT Langston	University of Nebraska Oklahoma St. Lincoln, NE Stillwa	University of Nevado Oregon Stat	University of Now Hampshire Pennsylvania Durham, NH University	Rutgors University Of Wayag	
Lorington, KT Col	Louisiana State University Montana Baton Rouge, IA Box	Southern University University and A&M College Eaton Rouge, LA	University of Maine Univer	University of Maryland University College Park, MD Du	nd	Princess Anne, MD
University of the District of Columbia Washington, DC	Florida A&M University Tallahassee, FL	University of Florida Gainesville, FL	Port Valley State College Port Valley, GA	University of Georgia. Athens, GA	University of Guam Mangilao, GU	
Alabama A&M University Normal, AL	Anburn University Anburn, AL	Tuskogoe University Tuskogoe, AL	University of Alaska Fairbanks, AK	American Samon Community College Pago Pago, AS	University of Arizona. Tucson, AZ	



ALABAMA Alabama A&M University - Normal

SMALL FARM PROGRAM

Evening Primrose. Primco, a marketing firm that buys and resells evening primrose for oil production, is interested in conducting a research on evening primrose to determine if it can be grown in Northern Alabama or the southern United States. This research is on a small scale to determine which production season, summer or winter, will best enhance seed oil content or more specifically gammalinolenic acid (GLA).

Tennessee Valley Authority (TVA) - Agricultural Resource Development Program. The purpose of this extension program is to include various production systems into farm operations, to determine if they are compatible and sustainable within the operation. Agricultural expenditures of TVA funds from 1987 to 1993 totaled approximately \$87,600; however, the returns to producers from these inputs through 1993 were \$188,513, a 215% return on investment. If no additional inputs from TVA are made after 1993, the continuing returns from the demonstrations established, are estimated to be \$130,635 over the next five years or a total of 364% return on investment.

Sustainable Agriculture in the "Classroom". Research demonstrations include strawberry production on black plastic mulch, hairy vetch, or bare soil and with or without fumigation to evaluate the costs of intervention, effect on productivity and the optimization of these factors. Strawberries will be succeeded or succeed melons, pumpkins, and/or tomatoes to improve cost effectiveness of the above interventions and intercropped in a jujube planting.

Well Water/Wellhead Protection. A major contribution to the groundwater contamination problem is the abundance of nitrogen and the present disposal practices that allow too much direct runoff into lakes and streams. Clientele are becoming concerned about pesticide contamination of groundwater and the health risk involved. Confined swine, cattle and dairy operations contaminate the groundwater with high levels of nitrate and bacteria in rural homesteads.

From the database maintained by Alabama A&M University on tested wells, animal waste has an impact on many of the wells that tested above the acceptable nitrate and bacteria levels. Ranges of nitrate levels were 10 mg/l in some cases and fecal bacteria were present.

ALABAMA (Continued)

Alabama A&M University - Normal

Shiitake Mushroom Program. The Shiitake Mushroom Program began in 1987. There are currently about 42-large and 80-small growers producing a commercial crop with 50 to 10,000 logs producing 1,000 pounds per week from a total of 105,000 innoculated logs. Statewide production is being coordinated by the Shiitake Producers of Alabama Association.

In 1993, the Alabama A&M Shiitake mushroom program hosted the National Shiitake Mushroom Symposium where over 225 participants attended from as far away as Belgium, Mexico, Florida, Delaware, Oregon, Illinois, and Michigan. The Proceedings of the National Shiitake Mushroom Symposium were completed in 1994 and are being distributed as a "for sale" publication along with the bulletin "Shiitake Mushroom Production on Logs".

The Shiitake mushroom research program is evaluating outdoor environmental control research on shiitake mushrooms grown on logs; the effect of season on log cutting; and scoring and girdling on the carbohydrate content of the logs.

USDA/Consolidated Farm Service Agency (CFSA) - Socially Disadvantaged Farmers' Project. This project will identify and select a group of socially disadvantaged farmers, determine their need for technical assistance and help them improve their operation, viability, and encourage farm ownership through a series of social, economic, and educational enhancement activities and by promoting sustainable, nontraditional alternative enterprises to enhance their on-farm income and develop demonstration models on agricultural systems.

CONTACT:

Cathy Sabota Alabama A&M University P.O. Box 967 Normal, AL 35762 Telephone: (205) 851-5710

Fax: (205) 851-5840

Electronic Mail: csabota@acenet.auburn.edu

ALABAMA Tuskegee University - Tuskegee

SMALL FARM PROGRAM

Tuskegee University offers an integrated program of research and cooperative extension activities that targets the small-scale and limited resource farm, farm family and rural community. At the School of Agriculture and Home Economics, the research focus is on both new innovations as well as improved production and management practices to raise the standard of living and quality of life of its rural clientele.

A primary research area at Tuskegee involves human capital development via professionals in agricultural economics, rural sociology, anthropology, and extension education. On-going projects include:

The Small Farmer Training and Technical Assistance Project. Funded by the USDA-Consolidated Farm Service Agency, this project targets small-scale and limited resource farmers in the areas of production management, financial management, record keeping, and marketing. Working one-on-one with individuals as well as organizing community workshops, county-based specialists assist farmers to become more productive and financially viable.

The Montgomery State Farmers' Market Project. Funded by the Alabama State Department of Agriculture and Industries and USDA/Agricultural Marketing Service, this project seeks to promote the State farmers' market in Montgomery, as well as other marketing outlets, for limited resource farmers. This project also links these farmers with low-income residents residing near the market by providing vouchers and transportation. Seminars presented through both this project and the training and technical assistance project, instruct producers on how to link up with area grocery outlets as well as instruction on quality control and management to make their produce more attractive to the buyer.

A second research area at Tuskegee involves plant and soil science. In the area of plant production, scientists who specialize in horticulture, soil science, plant pathology, and agronomy work not only with new plant varieties of traditional crops such as the sweet potato, but also with techniques and systems that require limited resources, that are environmentally compatible, and that are sustainable.

ALABAMA (Continued)

Tuskegee University - Tuskegee

A sample of on-going projects include:

Organic fertilizers. In conjunction with North Carolina State University, Tuskegee University has initiated a project involving the use of an organic nitrogen source (crimson clover) for sweetpotato production. The outcome of this project will result in the reduction of inorganic nitrogen application and, therefore, reduce the cost of production for the limited resource farmer. An additional benefit will be the reduced risk of contamination of ground water due to the overapplication of inorganic nitrogen and subsequent leaching.

Agricultural Plastic Research and Outreach Program. This program has as its main goals; (1) to extend the growing season for high priced vegetables through the use of plastic mulches, row covers and "walk-in-tunnels"; and (2) to control disease through soil solarization (covering moist soil with clear plastic during the hot summer months) and certain insects through the use of colored plastic mulches. In the first example, farmers are able to get a higher price for their "out of season" produce and in the second case, farmers save on the input cost of pesticides.

A third research area at Tuskegee involves animal scientists who focus on the areas of breeding, nutrition and health. On-going research projects include:

Artificial Insemination (AI). To help limited resource farmers to improve the quality of their breeding stock and calves, Tuskegee scientists are testing the use of AI on farms with herds ranging in size from one cow to thirty or forty cows. Less expensive than purchasing a bull, AI allows farmers to: (1) plan their breeding, calving and marketing season; (2) use a variety of bulls and breeds (e.g., match individual cows to specific bulls); and (3) focus on economical traits as small birth weight, fast growth rate, frame and muscling.

Goat Research. Tuskegee is examining different farming systems that emphasize goat as a small livestock meat producing enterprise for the limited resource farmer. This "poor man's cow" fits into a small farm system because it consumes less, has multiple births and produces more per unit than beef cattle, and it is easier to manage on a small scale basis.

The results of university-generated research are returned to the community via the Tuskegee University Cooperative Extension Program. With offices in a twelve-county region of South Central Alabama, and part of the Black Belt, this service arm of Tuskegee works directly with farmers, their families and communities to disseminate the research results and implement programs to benefit their rural clientele.

ALABAMA (Continued)

Tuskegee University - Tuskegee

A final area of research and cooperative extension collaboration at Tuskegee University is through the hosting of professional meetings and conferences in cooperation with the Center for Continuing Education.

The Professional Agricultural Workers Conference (PAWC), an on-going annual activity since 1942, the scope of the PAWC, with support from the 1890 land grant system, USDA agencies, state and local agencies, and the 1862 land grant system, embraces issues from the national to the local levels as they impact agricultural professionals and the wide range of clientele they serve.

<u>The Farmers' Conference</u>, an annual tradition since 1892, the Farmers' Conference reaches a statewide audience and focuses on agricultural and rural development concerns of farmers, families and rural communities.

Both of these activities are also used as venues to disseminate and promote research and cooperative extension projects and programs that benefit the limited resource and small scale farmer.

CONTACTS:

Robert Zabawa
Tuskegee University
George Washington Center
Agricultural Experiment Station
Tuskegee, AL 36088
Telephone: (205) 727-8114
Fax: (205) 727-8493
Electronic Mail:
rzabawa@acenet.auburn.edu

George Paris
Tuskegee University
George Washington Center
Agricultural Experiment Station
Tuskegee, AL 36088
Telephone: (205) 727-8114
Fax: (205) 727-8493
Electronic Mail:
qparis@acenet.auburn.edu

ALABAMA Auburn University - Auburn

SMALL FARM PROGRAM

The Alabama (AL) Cooperative Extension has a comprehensive program which includes small scale and limited income farm clientele. The majority of the AL Cooperative Extension Service agents and specialists spend a significant part of their time in activities relating to small scale and limited income programs. Three examples of the diverse types of activities in which AL Cooperative Extension Service personnel are involved are highlighted in the following discussion.

Vegetables. In horticulture, one program adapts intensive management techniques normally found in large-scale vegetable production to the small-scale vegetable grower. This program integrates cover crops, living mulches, and intercropping to promote soil conservation and more efficient pesticide and fertilizer use. In addition, this program emphasizes the use of plasticulture, irrigation scheduling, and water conservation. Funding was obtained to purchase two bedding units for farmers to use at no charge.

Goat Production. A cooperative program on goat production is conducted with Tuskegee University and Alabama A&M University. A goat day was recently held at Tuskegee University. This two-day event offered goat growers in the Southeast an opportunity to learn more about the industry and what other producers are doing. The goat day was well attended and very favorably received by attendees.

Sorghum and Cane Syrup. The production of sweet sorghum for syrup appears to be an area that offers farmers an excellent opportunity to increase farm income and productivity. This crop is ideally suited to the small landowner with limited capital. The average producer needs only 1-3 acres to produce this crop. Sweet sorghum yields 200-300 gallons of syrup per acre and sorghum syrup sells for \$15-20 per gallon. A recent budget estimated that total fixed and variable costs are approximately \$800 per acre. Net profits of over \$3,000 per acre are possible.

The marketing outlook for sorghum syrup is also very favorable. Almost all the sorghum syrup that is currently produced is sold within two months of processing. It is virtually impossible to purchase sorghum syrup from December through August. A ready market is available even if syrup production is increased several fold.

ALABAMA (Continued)

Auburn University - Auburn

Production, harvesting, and processing technology is demonstrated at an on-farm production center located near Decatur, AL. Four workshops have been held at this location. In addition, a publication on producing and processing sweet sorghum for syrup has been developed and widely disseminated. In addition, a 14-minute video on marketing syrup was developed in cooperation with the University of Tennessee. This video was developed to make producers aware of opportunities for obtaining additional profits through better merchandising and by expanding into value-added markets. The sorghum syrup program is now being expanded into sugarcane syrup production. Nine on-farm demonstrations were established in 1994.

CONTACT:

Paul Mask 110 Extension Hall Auburn University Auburn, AL 36849-5633 Telephone: (334) 844-5490

Fax: (334) 844-4586

Electronic Mail: pmask@acenet.auburn.edu

ALASKA University of Alaska - Fairbanks

SMALL FARM ACTIVITIES

Alaska Cooperative Extension has published and distributed at Extension workshops, a handbook "Field Crop Production Handbook - Alaska". It incorporates fact sheets on Alaskan crops and integrates a water quality emphasis. Dr. Ray Gavlak, Extension Agronomy Specialist is the project coordinator.

A Potato Grower's Conference and a Vegetable Grower's Conference were held in Palmer in February. These one day conferences are held annually to share research and Extension information with Alaska growers. Coordinator for these meetings is Jerry Purser, Land Resource Agent, Palmer.

CONTACTS:

Wayne G. Vandre
Alaska Cooperative Extension
221 E. Northern Lights Blvd., Suite 118
Anchorage, AK 99508-4140
Telphone: (907) 279-6575

Fax: (907) 279-2139

Electronic Mail: afwgv@acad2.alaska.edu

Irvin Skelton
Alaska Cooperative Extension
University of Alaska-Fairbanks
P.O. Box 756180
Fairbanks, AK 99775-6180
Telephone: (907) 474-6367

Fax: (907) 474-6567

Electronic Mail:

ffiws@aurora.alaska.edu

AMERICAN SAMOA American Samoa Community College - Pago Pago

SMALL FARM PROGRAM

All Farms in American Samoa must be considered small by the standards of the mainland. In fact, the average size of farm as recognized in the 1990 Census is only 15.1 acres. However, because of the Samoan family structure, almost everyone has access to property. The extended family system and small size of farm is the determining factor in our extension efforts. These research and extension efforts include:

- Community and home vegetable gardening to include the introduction of non-traditional crops and techniques to the Samoan system.
- Traditional crop improvement to include screening of local and introduced varieties of taro and banana for resistance to specific limiting factors.
- Integrated Pest Management to include biological control and specific training in Pesticide Application.
- Agroforestry due to the steep sloped topography of American Samoa, an effort is being made to integrate gardening recommendations with agroforestry techniques.
- Expanded Food and Nutrition Education Program in coordination with the home and community gardening projects, to introduce improved diet and homemaking skills through 4H and community family programs.

CONTACT:

Jim Currie
American Samoa Community College
Land Grant Program
P.O. Box 5319
Pago Pago, AMERICAN SAMOA 96799

Telephone: (684) 699-1394

Fax: (684) 699-4595

Electronic Mail: jimc@elele.peacesat.hawaii.edu

ARIZONA University of Arizona - Tucson

THE ARIZONA COOPERATIVE EXTENSION SMALL FARM PROGRAM

The Arizona Cooperative Extension Small Farm Program is conducted by individual Extension agents within counties and addresses a wide variety of programming issues. Future expansion in educational efforts towards small farm operators is forecast for most areas. This is in sharp contrast with past assessments and indicates that Arizona Cooperative Extension personnel should continue to gear up to meet the needs of small farm clientele.

Most small farm operators who are seriously in business to make a profit are growing vegetables, fruits, herbs, and berries for direct market. Direct marketing commonly takes the form of farmers' markets, roadside stands and U-Pick operations. A few growers market through brokers. Other small farm operators raise and market animals and animal feeds. Cooperative Extension agents assist growers in production techniques, marketing, and record keeping.

Arizona's expanding population and an increase in public interest in fresh fruits and vegetables has fueled an increasing demand for direct market produce. A new twist that is also catching on is the melding of agricultural tourism as an additional component of direct marketing operations. Spending time in the outdoors having fun while picking produce to carry home is a concept that seems to be ever more popular and 6 counties report an increasing interest in these activities.

Because of the increasing market garden and other direct marketing enterprize activities, and because clientele have indicated a need for educational programs in developing marketing expertise and strategies, Arizona Cooperative Extension provided a statewide Direct Marketing Seminar for clientele. About 80 people attended the day long seminar and participants rated the program highly. A 250-page Direct Marketing Handbook was provided participants and is currently for sale through Arizona Cooperative Extension.

CONTACT:

Rick Gibson
University of Arizona Cooperative Extension
820 E. Cottonwood Lane, Bldg. C
Casa Grande, AZ 85222
Telephone: (520) 836-5221

Fax: (520) 836-1750

Electronic Mail: Gibsonrd@ag.Arizona.edu

ARKANSAS University of Arkansas - Little Rock

THE ARKANSAS COOPERATIVE EXTENSION SERVICE SMALL FARM PROGRAM

The Arkansas Cooperative Extension Service Small Farm Program is in collaboration with the 1890 Cooperative Extension Program at the University of Arkansas at Pine Bluff. There are 2.4 specialists FTEs and 2.6 para-professional FTEs assigned to the Small Farm Program.

The Cooperative Extension Specialists work with Small Farmers through County Extension Agents in the areas of Alternative Crop Enterprises, Livestock Production, Marketing, and Horticultural Crops.

The participants in the Small Farm Program consists of both Limited Resource Farmers (farmers whose income are below \$40,000) and Small Farmers.

During FY 94, extension personnel conducted production and marketing meetings for small farmers. These meetings were held in central, southeast and northeast Arkansas. Extension specialists advised farmers on production information on herbs, spices, late season tomatoes, sweet corn etc. The acreage for vegetables and fruits increased by 20 percent during FY 94. This had an economic impact of approximately \$6 million.

In the area of livestock production, approximately 1,033 calf records on 21 herds were processed during FY 94. The average weaning weight for the herds on test was 499.6 pounds.

The State average weaning weight has been estimated to be 400 pounds.

This extra 100 pounds is worth an average of \$75 per calf. For the 1,300 calves, this represents an increased value of \$100,000.

CONTACT:

Mike French University of Arkansas P.O. Box 391 Little Rock, AR 72203 Telephone: (501) 671-2001

Fax: (501) 671-2251

Electronic Mail: extdir@uafsysa.uark.edu

ARKANSAS University of Arkansas - Pine Bluff

SMALL FARM PROGRAM

The University of Arkansas at Pine Bluff's (UAPB's) Small Farm Project is an on-going program in the School of Agriculture and Home Economics at UAPB. The program which is funded by the USDA-Consolidated Farm Service Agency (CFSA) started in six counties in 1987. Since that time, the project has expanded from six to thirteen counties. The project staff works with approximately one hundred and twenty socially disadvantaged and limited resource farmers in Eastern Arkansas.

The project has helped many limited resource and socially disadvantaged farmers improve their management skills (production and financial) through one-on-one training and group training meetings that are sponsored by the project. The project has also helped farmers to purchase land; to buy equipment and machinery; to add lime on fields; to add alternative enterprises to operations; to locate seeds for farmers (the swap program); and to clean drainage ditches.

Since the inception of the project in 1987, approximately fifty limited resource farmers have managed to keep their farms as a result of services provided by the project. In addition, the rate at which black farms were declining decreased from 36 percent (1,249 to 784) between 1982 and 1987 to 16 (784 to 658) percent between 1987 and 1992 or after the project started. This decrease, however, could be related to many other factors, but the work of the UAPB Project and the Arkansas Land and Farm Development Corporation (ALFDC) probably had some effect.

One of the participants in the project, Mr. Earnest Larry, a minority participant, was recently named Phillips County Farmer Of The Year. Mr. Larry began working with the project in 1989 when the project helped him to purchase 65 acres of land under USDA-CFSA's Socially Disadvantaged Farm Ownership Program. He purchased an additional 107 acres in 1993 with help from the project.

Mr. Larry is one of our larger farmers. He farms 1,200 acres which consist of approximately 800 acres of soybeans, 160 acres of cotton, 300 acres of wheat and 150 acres of milo. Mr. Larry works closely with The Small Farm Project. He attends all training meetings sponsored by the project and he was a speaker in the training workshop sponsored by the School on "What It Takes to Work With Limited Resource Farmers and Families". He attributes his success to hard work and following the guidance and advice that he received from The Small Farm Project.

ARKANSAS (Continued)

University of Arkansas - Pine Bluff

New Horticulture Assistant, Helping with Limited Resource and Socially Disadvantaged Farmers.

The University of Arkansas at Pine Bluff/Consolidated Farm Service Agency (UAPB/CFSA) Small Farm Project added a Horticultural Assistant to the project staff in June, 1994. The position was added to the project to help Socially Disadvantaged and Limited Resource Farmers increase or supplement their income by growing alternative crops. The position is held by Mr. Ester Doolittle, who has been actively working with approximately twenty socially disadvantaged and limited resource farmers during the Summer. In addition to production, information (varieties, seeding rates, pesticide application, etc.), Mr. Doolittle has worked with the farmers in locating local fresh markets for these vegetables.

In an attempt to locate wholesale markets for the farmers, the Southeast Arkansas Vegetable Grower Co-op (SEAVGC) was reactivated. There are presently about 20 active members in the Co-op. The Horticulturist has worked closely with the Lee County Vegetable Co-op to identify wholesale markets for the SEAVGC and to educate Co-op members about growing vegetables, packing sheds and vegetable equipment. Co-op members have been taken to Vegetable Field Days, Alternative Crop Technology (ACT) Farms, and Tours of the Lee County Vegetable Co-op. Co-op members were also given a tour of the Alternative Crops grown on the UAPB Experiment Station.

The Co-op Board of Directors, in cooperation with the Small Farm Project, met weekly during the Summer, at the S. J. Parker Research Center to coordinate market locations. The meetings were coordinated with the help of the Horticulture Assistant, who was also instrumental in helping the Co-op locate markets for their crops. The Co-op grew southern peas during the summer and are growing greens during the fall and winter.

The new Horticulture Position has also helped to increase the University's assistance to socially Disadvantaged Farmers. Additional farmers are stopping by the local UAPB/CFSA Project office to obtain information on alternative crop production and financing opportunities. In addition, the farmers have an opportunity to visit with the research scientists at UAPB who are doing research with the crops (peas, sweet potatoes, herbs) that they are growing.

ARKANSAS (Continued)

University of Arkansas - Pine Bluff

The new position has had a positive effect on the University and the UAPB/CFSA Small Farm Project. Although the workload of the project has increased, the project staff feels that the additional services provided to the local socially disadvantaged and limited resource farmers, is well worth the increased workload.

CONTACTS:

Henry English University of Arkansas Box 4005 Pine Bluff, AR 71601 Telephone: (501) 543-8142

Fax: (501) 543-8130

Jackie McCray University of Arkansas Box 4005 Pine Bluff, AR 71601 Telephone: (501) 543-8534

Fax: (501) 543-8033

Electronic Mail:

nb24066@uafsysb.uark.edu

CALIFORNIA University of California - Davis

SMALL FARM PROGRAM

The primary mission of the Small Farm Program at the University of California-Davis is to help small farmers compete and survive, by offering practical, positive solutions. The program concentrates on alternative marketing, specialty production and enterprises, getting started in farming, and the needs of small-scale, under-represented farm groups such as recent Southeast Asian immigrants. The Program provides programmatic leadership within Cooperative Extension and the Division of Agriculture and Natural Resources in California, provides an opportunity for small farmers to interact, provides information/services not readily available elsewhere, builds alliances with groups within and outside the University, serves needs not being served by others, and facilitates linkages between urban and rural communities.

A 170-page Small Farm Handbook is available to help you with practical information about:

- Finding a good place to buy property
- Making a living
- Buying equipment
- Producing crops and raising animals
- Selling what you produce
- Hiring Help
- Dealing with laws, regulations, and taxes
- Keeping family relationships healthy

COST: \$20.00

CONTACTS:

David Visher
University of California
Small Farm Center
Davis, CA 95616-8699
Telephone: (916) 752-7779

Fax: (916) 752-7716

Electronic Mail: dlvisher@ucdavis.edu

Ron Voss University of California Small Farm Center Davis, CA 95616-8699 Telephone: (916) 757-8910

Fax: (916) 757-8579

Electronic Mail: revoss@ucdavis.edu

COLORADO Colorado State University - Fort Collins

SMALL FARM PROGRAM

The 1993 Colorado Agricultural Statistics indicated Colorado has 25,500 farms and ranches with an average size of 1,286 acres.

Urban sprawl along the Front Range stretching from Fort Collins to Pueblo has created numerous challenges and opportunities for Colorado State University Cooperative Extension. A great number of "ranchettes" (5-10 acres) have been established in this corridor by people who work in the city but want to live in the country.

Several educational approaches have been taken. In 1992, an "alternative agriculture" conference was co-sponsored by the Colorado Department of Agriculture and Colorado State University Cooperative Extension. We had booth displays and presentations for the general public from a variety of enterprises such as aquaculture, ratite producers, elk raisers, cashmere goats, small berry producers, etc. Many small farm operators were in attendance and the response was excellent.

Other approaches we've used is a publication entitled "A Guide to Rural Living and Small-Scale Agriculture" which was developed by an Extension agent. In other instances, we provide day-long workshops for "managing a few acres"; we have trained interested Master Gardeners to serve as experts to answer questions for small acreage landowners; we recently held a four-state conference on value-added agriculture; we have numerous fact sheets and other print and visual materials.

In Colorado, we have had to accommodate "small farm" inquiries in addition to our traditional assistance to larger, commercial agriculture. Due to the dynamics of population growth here and limited resources, we are attempting to provide more self-study and group instruction materials to small farms and less one-on-one due to the volume of requests.

CONTACT:

Dennis Lamm
Colorado State University
Room 1, Administration Building
Fort Collins, CO 80523-4040
Telephone: (970) 491-6281

Fax: (970) 491-6208

Electronic Mail: dlamm@vines.colostate.edu

CONNECTICUT **University of Connecticut - Storrs**

SMALL FARM PROGRAM

Connecticut's agricultural base is very diverse, with major industries being greenhouse and nursery, fruits, vegetables, dairy/livestock and poultry. Extension's educational programming involves interaction with virtually all of these audiences and is carried out across the state by Extension educators and specialists.

Connecticut Cooperative Extension System does not identify small farms as a separate category in its formal program planning and reporting. However, since by most standards many of the farms in Connecticut are small farms, a significant amount of our educational efforts in the agricultural area involve small farms.

Extension educational programs address a wide variety of topics. Nutrient Management programs, including the pre-sidedress nitrogen test for field and sweet corn, have led to significant reductions in nitrogen use. Application of integrated pest management practices by a wide variety of growers in the vegetable, fruit, nursery and agronomic crop areas has reduced pesticide use while maintaining/improving product quality. Waste management practices for small scale livestock and dairy operations have addressed environmental and farm management issues. Education of farm businesses about lease and tax management issues has improved small farm sustainability. Pesticide application and management courses have served to assist in improved worker protection safety and environmental protection. Forest and wildlife stewardship issues have been addressed through training woodland owners and volunteers in forest stewardship, maple sugar production and business management.

CONTACT:

Roy F. Jeffrey **University of Connecticut** 1376 Storrs Road Storrs, CT 06269

Telephone: (203) 486-4126

Fax: (203) 486-4128

Electronic Mail: rjeffrey@canr1.cag.uconn.edu

DELAWARE Delaware State University - Dover

SMALL FARM PROGRAM

The small farm activities which are on-going at Delaware State University are in conjunction with the mission of our 1890 University. Delaware State University continues to strive to meet the needs of small, limited resource family farms. Delaware State University Research and Extension areas include:

- Sustainable beef cattle research, utilizing rotational grazing on marginal cropland.
- Herb and essential oil production which has the potential to dramatically increase farm income on small acreage.
- Aquaculture research designed to utilize existing farm ponds to increase farm income.
- Socially Disadvantaged Farm Program in conjunction with the USDA-Consolidated Farm Service Agency goal to increase the opportunities for socially disadvantaged persons to begin family farms or expand existing family farms.

The philosophy of Delaware State University Research and Extension Programs is based on the premise of small farm diversification, producing agricultural products that consumers purchase directly from the farm, compatible with current farm mix and requiring minimal capital investment.

The small farm program at Delaware State University continues to strive and meet the needs of the agricultural community of Delaware.

CONTACT:

Mark Davis
Delaware State University
1200 North Dupont Highway
Dover, DE 19901

Telephone: (302) 739-5160

Fax: (302) 739-4997

Electronic Mail: mprvett@dsc.edu

DELAWARE University of Delaware - Newark

SMALL FARM PROGRAM

In Delaware, we have found it appropriate to avoid designations regarding farm size. We have a number of farm enterprises that are in place in both the "small" farm setting and the "large" farm setting. The agriculture economy in Delaware is fortunate to be based on a diverse group of crop and livestock opportunities and to be in close proximity to large urban markets.

The Poultry Industry is the major livestock operation. Producers contract with a vertically integrated company for specified production capacities. In 1993, over 250 million chickens were produced for market by nearly 1,000 producers. These producers represent large, commercial farmers as well as small, part-time or retired individuals. The University of Delaware conducts research and Extension programs that serve the industry.

Delaware has a significant number of producers of vegetables, ornamentals, and nursery crops. Again, these commodities are produced on a wide range of farms. The Delaware Cooperative Extension Service provides educational programs for all producers of these commodities.

Over 50% of Delaware farmers have a significant off-farm income. Many of these families have at least one spouse working off the farm, some have two. Poultry, grain, vegetables, and ornamental crops are produced as a part-time enterprise in these situations. It is not unusual for grain producers to till as much as 500 acres and still maintain a non-farm job. Vegetables and ornamentals are produced on a small scale in these scenarios due to the intensity of production. The Cooperative Extension System in Delaware adapts programs and the delivery of educational materials to fit the schedule and needs of these part-time farmers. Majority of Extension Programs are implemented through the County Extension Offices in Delaware.

CONTACT:

Ed Kee
University of Delaware
Research and Education Center
R.D. 6, Box 48
Georgetown, DE 19947
Telephone: (302) 856-7303

Fax: (302) 856-1845

Electronic Mail: edwin.kee@brahms.udel.edu

DISTRICT OF COLUMBIA University of the District of Columbia - Washington, DC

SMALL FARM PROGRAM

The District of Columbia does not have small farms, per se. However, there are 40 sites where citizens, and garden clubs grow crops of all kinds on lands belonging to the city and the Park Services.

The University of the District of Columbia (UDC) has approximately 143 acres at Murkirk (Route 1), North of Beltsville. This land is the Agricultural Experiment Station (AES) under Dr. James Allen, Director. So far, work on use of composts, sludge and effects of heavy metals were done.

On-going work in UDC deals with the garden sites, homeowners, government properties, institutions, golf courses, etc. on the reduced use of pesticides and fertilizers, as well as Integrated Pest Management (IPM) and Best Management Practices (BMPs), especially the use of biologicals. This is linked to water quality and food quality and safety.

The Sustainable Agriculture Research and Education (SARE) is planned to be implemented in later 1995-96.

The AES/CES do joint projects on pesticide/fertilizer reduction - resistant ornamentals and trees for D.C. and wide use of IPM. We are looking into intensive gardening - growing high value diversified crops under BMP; - master gardeners are trained as volunteers in various areas to help the community in carrying out some of the practices.

The use of the AES land is an excellent idea to implement those of Delaware, Alabama and Vermont. While collecting data growing special vegetables and fruits for the D.C. market can augment the income for other projects.

CONTACTS:

Mohammed Khan
Cooperative Extension Service
University of the District of Columbia
901 Newton Street, N.E.
Washington, DC 20017
Telephone: (202) 274-6900

Fax: (202) 274-6930

Electronic Mail: jhazel@esusda.gov

Maurice Dorsey University of the District of Columbia 901 Newton Street, S.E. Washington, DC 20017 Telephone: (202) 274-6900

Fax: (202) 274-6930

Electronic Mail: jhazel@esusda.gov

FLORIDA Florida A&M University - Tallahassee

SMALL FARM PROGRAM

Small Animals and Small-Scale Farm Profitability and Sustainability. In the Extension program target counties, some farmers can benefit from diversification into new agricultural enterprises and alternative production practices so as to improve or sustain farm profitability and environmental stewardship. An agricultural education program has been developed to emphasize new or alternative enterprises, new production and marketing practices, diversification, farm operations, and making use of natural resources. Through on-farm demonstrations, farm visits, workshops, field days, and group meetings, small farmers are taught to: (1) Utilize new skills and processes to evaluate the production and market potential of alternative agricultural products, (2) Improve resource utilization and profitability while minimizing environmental impacts through adoption of alternative production systems utilizing new and existing technologies and management practices, (3) Increase profitability by using more currently recommended practices that are both cost-effective and environmentally sound.

Small Farmer Training and Technical Assistance Project. This project is funded by USDA-Consolidated Farm Service Agency (CFSA) and is aimed at minority Rural Economic Community Development (RECD) farm borrowers and potential borrowers who are socially disadvantaged persons. A major project focus is to help the CFSA borrower reach a loan payback level, and to achieve financial documentation of the farm business to the point that graduation to a commercial lender is possible. The educational program is aimed at teaching small farmers who are RECD borrowers to make management decisions with full consideration of components such as cost of production, financing, market demand, associated risk, and profitability of return of investment. The training and technical assistance program is also aimed at improving the business, technical and marketing skills of the target audience.

Effect of Feeding Systems on Growth and Reproductive Performance of Goats. This research project is funded by USDA-Cooperative State Research, Education, and Extension Service (CSREES). The problem is a lack of specific, technical and economic information on the breeding/reproduction, nutrition, growth, and economic performance of goats raised for meat under various management systems. Implemented on-campus research project and on-farm demonstrations to study the effects of various management systems (Intensive vs. Semi-Intensive) on the economic and production characteristics of meat goats.

Florida A&M University - Tallahassee

The two management systems using 2-4 year old native meat goats and their crosses are also being investigated for breeding effects on reproduction and growth rate. Their relative economic merits and implications are also being analyzed as an integral part of the study.

Low Input Sustainable Agricultural Programs for Small Farmers in North Florida. This is a Capacity Building Project funded by USDA-CSREES. The overall objective of this project is to design, test, and evaluate cost effective Low Input Sustainable Agricultural systems for small farmers in North Florida. More specifically, the objectives of the project are to: (1) Design, test and evaluate low input technologies for crop/livestock systems; (2) Design, test and evaluate alternative technologies for low input sustainable cropping systems; and (3) Comparatively evaluate the economic benefits of alternative vs. the traditional system. These projects are being implemented through on-campus research and on-farm demonstrations.

CONTACT:

Claude McGowan
Florida A&M University
Perry-Paige Building, Room 202C
Tallahassee, FL 32307
Telephone: (904) 599-3547

Fax: (904) 561-2152

Electronic Mail: cmcgowan@mailer.cc.famu.edu

FLORIDA University of Florida - Gainesville

THE SUWANNEE VALLEY AGRICULTURAL RESEARCH AND EDUCATION CENTER

The Suwannee

The Suwannee Valley Agricultural Research and Education Center (SVAREC) is a unit of the University of Florida's Institute of Food and Agricultural Sciences. The SVAREC was created by the Florida Legislature in 1947 and began operation on November 1, 1950 as the Suwannee Valley Agricultural Experiment Station. In the early days, the primary objective of the Experiment Station was to serve the producers of flue-cured tobacco, cotton, soybeans, peanuts, corn and pasture forages in Columbia, Dixie. Gilchrist, Hamilton, Lafayette, Levy, Madison, Suwannee, Taylor and Union counties. At the time the Experiment Station became operational, it did not own its land but had to depend on area farmers to allow research and demonstration activities to be conducted on land they owned. Most of this work was done on farms in Columbia. Hamilton and Suwannee counties. It was not until 1953 that the Experment Station had land of its own and a 300 acre farm purchased near Live Oak. This site is approximately six miles east of Live Oak on Highway 136 and was selected because it contained a wide variation in soil types permitting work with all crops germane to the area. In 1966, additional 20 acres were purchased in order to establish a swine research facility.

During the 1980s, the programmatic emphasis and direction of the SVAREC began to shift in response to the ongoing transition of agriculture in the Suwanne Valley area. Currently the program at the SVAREC is no longer agronomically and livestock driven, but is concentrating on developing profitable alternative agricultural opportunities for Suwannee Valley agricultural producers. To this end, the primary mission of the SVAREC is to develop and demonstrate technology appropriate to the needs of production agriculture clientele in the 12 county Suwannee Valley area (Alachua and Baker counties have been added to the 10 originally targeted counties). To accomplish this mission, applied research and demonstration programs are in place or are being planned toward the development of an interdisciplinary farming systems' research and extension approach to solving real problems of farmers on their farms.

Program areas of emphasis include: (1) field vegetable production; (2) greenhouse vegetable production; (3) fruit and nut crop production; (4) the utilization of animal waste as a fertilizer resource; (5) ornamental tree production; (6) perennial peanut as an alternative livestock forage; (7) Christmas tree and shiitake mushroom production; (8) aquaculture.

University of Florida - Gainesville

Because of the unique nature of some of the applied research and demonstration work conducted at the SVAREC, its significance is not only relevant to the Suwannee Valley area but is relevant regionally and nationally as well.

IFAS is:

- The Institute of Food and Agricultural Sciences, University of Florida.
- A statewide organization dedicated to teaching, research and extension.
- Faculty located in Gainesville and at 13 research and education centers, 67 county extension offices and four demonstration units throughout the State.
- A partnership in food and agriculture, and natural and renewable resource research and education, funded by state, federal and local government, and by gifts and grants from individuals, foundations, government and industry.
- An organization whose mission is:
 - Educating students in the food, agricultural, and related sciences and natural resources.
 - Strengthening Florida's diverse food and agricultural industry and its environment through research.
 - Enhancing for all Floridians, the application of research and knowledge to improve the quality of life statewide through IFAS extension programs.

In FY 94 in Hamilton County - Held educational meetings in tobacco, beef, corn for all producers, large and small, but also meetings in alternatives, such as meat goats, especially for small farmers; Information helps small farms' viability, helps small farmers retain farms.

Visited small farmers to assist with individual concerns, such as pest problems, beef cattle production.

All Extension support information has empowered small farmers, as seen in their taking active roles to sustain, build-up their farms, e.g., (1) one small beef producer let Hamilton Co. Cattlemen's Association, Florida Beef Council put billboard promoting beef on his land by I-75 at no cost, (2) one tobacco farmer, who has been assisted often with pest problems, first small farmer in area to buy tobacco combine.

University of Florida - Gainesville

In Columbia County - In FY 93 and FY 94 gave educational programs and technical assistance which enabled small farmers to increase profit and retain farms:

- for alternative crops for small farmers, e.g., goats, pine straw, loofah, ornamental plants, green peanuts.
- for small animal production, e.g., goats, rabbits, game birds; 97 attended.
- for aquaculture and pond management.

Established on-farm demonstrations on 7 small farms, providing information which enabled farmers to make decisions on sustainability; improve production viability:

- FY 93 effective nematode control; built and calibrated equipment, assisted with application; 7 adopted, increasing yield and quality.
- FY 93 transplant clipping; 7 adopted, reducing labor cost for pulling transplants by 1/3, for savings of \$20 per acre.
- FY 94 transplant production-flat vs. raised plastic beds; 4 adopted flat beds because less management was required.

FY 93-assisted 6 small peanut farmers with crop protection strategies against weeds, insects, diseases throughout the growing season.

FY 94-trained 220 small farmers to comply with Federal Worker Protection Standard.

In Union County - Extension provides help for small farmers, empowers them, pays off in active volunteer support: Ellcano Reeves, greens farmer, on agriculture advisory committee; let agent do crop trials on farm; helped county director set up 2 multi-county programs; now working to recruit volunteers for 4-H.

In FY 94 in Gadsden County - Conducted 23 meetings and workshops to discuss profit-making opportunities, e.g., meat goats, Chinese vegetables, aquaculture, luffa; assisted 2 small farmers experiment with luffa production, marketing; information enabled small farmers make informed decisions on sustainability to improve farm's viability.

Introduced 5 small beef producers to systematic grazing to maintain sufficient high-quality feed year round; 5 were adopted.

University of Florida - Gainesville

Helped small farmer develop watering source for livestock, fencing improvements to keep livestock out of surface water running through property.

With USDA-Natural Resources Conservation Service-demonstration of 8 nontraditional forages.

In FY 94 in Jefferson County - Held Pecan Field Day, row-crop and Vegetable Field Days, Pesticide Applicator Training to reach small farmers with information they can use to make informed decisions about production.

- Held 2 workshops on control of internal and external parasites in small herd of beef cattle.
- Assisted one small farmer start diversified goat project to increase income.
- Gave information to pond owners, aided in pond testing, to help small farmers excercise option.

In FY 94 in Bradford County - Held over 20 workshops for 125 small farmers; titles included Pesticide Safety, Integrated Pest Management, Worker Protection Standards, Marketing Farm Products, Alternative Vegetable Production, Forages, Cattle Management, Ostriches, Aquaculture; over 100 adopted at least one ecologically sound best management practice, which resulted in decreased amount, therefore cost, of inputs and increased production of and income from vegetables; therefore farmers are able to increase viability.

 Conducted over 200 field visits; consultations were made with small farmers to help with individual production decisions.

In FY 94 in Suwannee County - Helped small farmers take responsibility for effects on environment; worked with 2 small farmers enrolled in Water Quality Improvement Program; helped 1 producer get poultry litter tested to determine correct amount of nitrogen to apply to pasture to prevent groundwater pollution; taught poultry producers about composting.

Established demonstrations, 1 meat goat, 1 rotational grazing, to educate small farmers about production options, methods they can use to improve farm viability.

Held Tobacco Shortcourse to provide small farmers information to make appropriate management decisions

University of Florida - Gainesville

In Madison County - Introduced small farmers to alternative crops, e.g., Christmas trees, blueberries, goats, to give other options to increase profit, sustain farm.

- Held field days, other programs specifically for small farmers; discussed alternative vegetables, e.g., broccoli, profitable crop in small space; visited enterprises such as herb farm, u-pick farm, vegetable market.
- Held multi-county meeting on livestock production specifically for small producer; discussed health management, bull selection, recordkeeping.
- Worked with small tobacco farmer to solve specific concerns, e.g., sucker control.

CONTACTS:

James L. App 1038 McCarty Hall Box 110210 University of Florida Gainesville, FL 32611-0210 Telephone: (904) 392-1761

Fax: (904) 392-3583

Electronic Mail: jla@gnv.ifas.ufl.edu

Steve Ryan University of Florida Route 2, Box 2181 Live Oak, FL 32060 Telephone: (904) 362-1725

Fax: (904) 362-3067

GEORGIA University of Georgia - Athens

SMALL FARM PROGRAM

The Georgia Small Farm Record Book was designed to assist small farmers maintain cash income and cash expenses. We have found that many of the part-time farmers are also using this book. It is simple but efficient for the keeping of cash records.

"What You Always Wanted To Know About Part-Time Farming...But were afraid to ask" was put together for use by folks thinking about getting into the farming business on a part-time basis. We have found that it is also being used by small farmers as well.

The "Farm Financial Profile" was developed during the farm crisis in the 1990s. We experienced difficulty in working with small and limited resource farmers in obtaining financial records, so we designed a quick method of getting this information. It has since been used by many small farmers.

We have several videos which were developed with the assistance of Fort Valley State College to assist small and limited resource farmers in planning and making financial decisions. One video discusses goals, basic resources needed to be profitable, making a plan, implementing a plan, evaluating the plan and record information and how to adjust the operation if the goals and objectives were not met. We had one video depicting a farmer borrowing money from a banker. It shows the typical manner in which many small farmers approach borrowing. A follow-up video shows the proper way to approach a lender to secure credit.

We have enterprise budgets on SuperCalc 4 and 5 for use by Extension Agents and others working with small farmers. The budgets are risk rated to show the riskiness of some of the enterprises. We are currently developing more of the specialty budgets to help the small and part-time producer make better decisions.

CONTACT:

Ron Atkinson University of Georgia Cooperative Extension Service Athens, GA 30602 Telephone: (706) 542-1861

Fax: (706) 542-9316

Electronic Mail: ratkinson@uga.cc.ug.edu

GEORGIA Fort Valley State College - Fort Valley

SMALL FARM PROGRAM

Educational programs of Agriculture and Natural Resources at Fort Valley State College are designed to assist Georgia families in improving their quality of life through income derived from modern efficient farm practices, innovative marketing approaches, and the conservation of natural resources. Programs are targeted towards small/family farmers, part-time farmers, home gardeners and youth as primary clientele.

CONTACT:

Glenwood F. Hill School of Agriculture, Home Economics and and Allied Programs Fort Valley State College Fort Valley, GA 31030-3298 Telephone: (912) 825-6297

Fax: (912) 825-6299

Electronic Mail: glenhill@fvs3.fvsc.peachnet.edu

GUAM University of Guam - Mangilao

SMALL FARM PROGRAM

During the fiscal year, Agriculture and Natural Resources (ANR) faculty participated in the following issues plans of work: Water Quality, Agricultural Marketing, Integrated Pest Management (IPM), Pesticide Applicator Training (PAT), and Sustainable Agriculture. In addition to issues plans, ANR faculty conducted educational activities, or core programs, focused on faculty expertise including: aquaculture, entomology, farm management, horticulture, poultry and livestock.

The primary objective of the Water Quality program as it relates to agricultural production is to improve cultural practices so as to minimize or eliminate the possibility of contaminating the Island's potable water resources. Several Water Quality related workshops and demonstrations were held including: (1) use of tensiometers as a tool to determine the frequency of irrigation as opposed to routine water scheduling, (2) use of plastic mulch for water and nutrient conservation and weed control, (3) use of fertilizer injectors as a component of the drip irrigation system to supply plants with nutrients while irrigating at the same time, (4) use of aquatic effluent from ponds for other aquatic or plant production use, (5) improved animal waste disposal to avoid run-off/seepage into aquifier re-charge areas, and (6) proper fertilizer-use for crops, ornamentals, and golf course greens/fairways, including such practices as amount, frequency and application methods.

In the area of Agricultural Marketing, activities involved a redesign of data collection and report format for the Market Information System (MIS) and automated the system using computers. The MIS involves forecasting production data of fruits and vegetables as well as disseminating farm gate prices of local produce through a mail-out flyer called Crop Forecast and Market News Report. The MIS is a joint project of the College and the Guam Department of Agriculture. In addition, ANR faculty conducted a workshop on grades and standards developed for the Chamorrow Village Market.

The goal of IPM is to have agricultural producers adopt a pest control system which utilizes all available means of control rather than relying continually on chemical pesticides. The IPM program during this period concentrated on pesticide application on eggplants, tomatoes and hot peppers. Some of the control methods included the use of pest resistant varieties, scouting of pest populations for determination of pest control timing before spraying pesticides, weed control within the plant rows and buffer areas of the crop, and general field sanitation. Also, a manuscript on the Basic Principles of IPM is near completion for publication.

GUAM (Continued)

University of Guam - Mangilao

The Sustainable Agriculture plan was developed, submitted to USDA-Cooperative State Research, Education and Extension Service and approved this year. The Sustainable Agriculture project aims at (1) identifying those farming practices that are environmentally sound as well as economically viable, and (2) promoting said practices to the farming community. Preliminary work in sustainable agriculture currently involves the collection of cost of production data from cooperators (farmers). Production cost data are required for the development of budgets associated in practices deemed feasible under the definition of sustainable agriculture.

In the area of publications, ANR faculty produced the following: two pamphlets on control released fertilizers; and three fact sheets (one each on coconut, banana and breadfruit) for inclusion in a publication series by the Agricultural Instructional Materials (AIMS) project of the Agricultural Development in the American Pacific (ADAP). With the cooperation of an AES scientist, Extension horticulturists produced a cultivar trial publication on selected vegetable varieties. Extension horticulturists also provided literature for inclusion to the PDN weekly series on Home Gardening. Also, during this period, a second edition of the Guam Fruits and Vegetable Pesticide Guide was issued, and publication manuscripts were developed for the following topics: basic IPM principles; betel-nut palm care; and papaya plant care.

The ANR Extension faculty continued to respond to on-site field, office and telephone calls for diagnostic work associated in the production of horticultural crops, aquatic organisms, poultry and livestock. In the area of farm management, a great portion of calls were in response to assistance in the preparation of loan packages and land lease applications.

In regional work, ANR Extension faculty participated in some of the programs of the ADAP including Agro-forestry; Agricultural Statistics; and the AIMS project. Two Extension faculty members were on-loan to the region, one to the FMS to conduct a PAT program for government employees, and the other to the Community College of Micronesia to conduct a seminar on computers and the application of electronic mail.

CONTACT:

Victor T. Artero
University of Guam
College of Agriculture and Life Sciences
UOG Station, Mangilao, Guam 96923
Telephone: (671) 734-2575

Fax: (671) 734-6842

Electronic Mail: vartero@uog9.uog.edu

HAWAII University of Hawaii - Manoa

SMALL FARM PROGRAM

Diversified agriculture on small farms has become increasingly important in Hawaii over the decades, to the point that in 1992 the farm value of diversified agriculture, \$267 million, exceeded the combined receipts of sugar and pineapple. These latter plantation-style crops have maintained their own research and extension divisions, while Hawaii's diversified agricultural farmers have traditionally been the primary clients of Hawaii Cooperative Extension Service (CES). During the past 25 years, farm value of diversified agriculture in Hawaii has more than tripled.

Hawaii CES has played a major role in developing many of Hawaii's diversified crops. Hawaii (and the world's) macadamia nut production is based on cultivars developed at the College of Tropical Agriculture and Human Resources (CTAHR). The dendrobium orchid and anthurium cut flower and papaya industries similarly owe much to plant breeds at CTAHR. Industrial analysis conducted periodically by CTAHR for major diversified agricultural commodities identify problems and propose solutions. Industry participants in the process prioritize the components of the analyses, and State agencies use the reports to determine critical areas for support of research and extension efforts.

Hawaii CES is currently assisting farmers to battle a virus disease that threatens papaya, the second-ranked diversified crop. Educational brochures, videotapes, workshops, farm visits, field days, and industry conferences have focused attention on the problem. This type of coordinated response form CTAHR researchers, specialists, and Extension Agents is in constant force across an array of commodities from ginger root, to coffee, to potted foliage plants, to various livestock industries. Hawaii CES assists farmers with marketing their commodities. Recently, protocols were developed to help cut flower exporters self-inspect to satisfy California quarantine requirements, paving the way for timely delivery of high quality tropical flowers and foliages to California's markets.

CONTACT:

Po-Yung Lai University of Hawaii 3050 Maile Way, Gilmore 203 Honolulu, HI 96822 Telephone: (808) 956-9105

Fax: (808) 955-1806

Electronic Mail: ta hitahr@avax.ctahr.hawaii.edu

IDAHO University of Idaho - Moscow

SMALL FARM ACTIVITIES

Extension program activities for Small Farms throughout Idaho are directed toward market gardening, hobby farming or ranching, specialty agriculture such as exotic animals, small fruits and berries, and farmers' markets.

In the northern panhandle, much of the small farm program is delivered through master volunteers. Livestock Masters this past year sponsored and presented 2 1/2 hours of "Backyard Barnyard" programs in Bonners Ferry, Sandpoint and Coeur D'Alene on pasture management and improvement, marketing your small farm, and barnyard beef for backyard beginners, Small Farm/Livestock Record Keeping, Rabbit Enterprises, Beginning Your Sheep Production, Basic Backyard Horse Sense, and Equine Reproduction. A regional Poultry, Game Bird and Exotic Bird workshop attracted over 90 participants and 15 exhibitors. Health, egg production, feeds and feeding, meat production, housing, waterfowl production and ratite management were featured.

Master Gardeners and Extension faculty partnered in delivering a full-day program on composting in Bonners Ferry and over 25, 2 1/2 hours of "Horticulture Workshop Series" (HWS) programs in Kootenai, Bonner and Boundary counties. Examples of HWS programs include: pruning and grafting, annual perennial flower garden basics, perennial flower gardens, beginning vegetable gardening in Northern Idaho, seed saving for gardeners, wildlife damage/depredation in yards and gardens, weeds in yards and gardens, cover crops for gardeners, landscaping in the Inland Northwest, native shrubs and plants - propagation/transplanting/selection. Master Gardeners also sponsored public tours of commercial nurseries and ornamental gardens in the region. Several commercial "green industry" small farm businesses (The Flower Farm, Greentree Naturals, The Greenhouse) have developed as a result of completion of the Idaho Master Gardener program or participation in the Horticulture Workshop Series.

A two-day advanced specialty foods workshop presented marketing information to targeted specialty foods enterprises in the Idaho Panhandle in cooperation with the Idaho Department of Agriculture's Marketing Division.

New farmer packets, developed by the Bonner County Extension faculty and staff, covered topics such as ginseng, specialty farming, weeds, and beginning gardening, small fruits, grapes, tree fruits, nut trees, rose culture and landscaping.

IDAHO (Continued)

University of Idaho - Moscow

Over one hundred people participated in the Ag Diversity Conference held in Pocatello, in March, 1994. Participants had the opportunity to attend workshops from four tracks including Large-Acreage Agricultural Crops, Small-Acreage Agricultural Crops, Value Added Enterprises, and Financial and Marketing Considerations. A similar conference was conducted again in Pocatello this year.

CONTACT:

Corrine Lyle University of Idaho College of Agriculture Moscow, ID 83843

Telephone: (208) 885-5883

Fax: (208) 885-6654

Electronic Mail: clyle@marvin.ag.uidaho.edu

ILLINOIS University of Illinois - Urbana

SMALL FARM PROGRAM

Small farm operators have access to many of our extension personnel and agricultural programs that are not targeted specifically for small farm acreage. Although the University of Illinois at Urbana-Champaign (UIUC) Cooperative Extension Service (CES) does not have statewide programming exclusively for small farm operators, three programs have been developed targeting small acreage.

In February 1994 and 1995, CES, in cooperation with Rock Valley College and the USDA-Natural Resources Conservation Service sponsored a workshop entitled, "Small Tract Management." These two workshops focused on issues of interest to those who own small tracts of land (10 acres or less). Topics included marketing, small fruits, horse nutrition, health and management, poultry, orchards, prairies, ponds, and pasture and livestock.

In December 1994, CES held a workshop, "Putting Small Acreage to Work" for individuals who: (1) earn a living off small acreage, (2) transform unique interests into profitable enterprises, (3) make a decent second income on their small acreage and (4) capitalize on their business skills to tap a niche market. Topics included alternative and small scale livestock production, brambles, herbs, mushrooms, ethnic vegetables, marketing, sweet corn, strawberries, dried flowers, blueberries, cut flowers and organic production systems.

Another effort that indirectly targets small farmers is CES involvement with the Illinois Sustainable Agriculture Network (ISAN). The Network is primarily charged with fostering and linking farmer-managed and community-based sustainable agriculture groups in Illinois with the UIUC College of Agriculture, in a statewide participatory research and education network.

The primary opportunities for in-service training of extension agents regarding sustainable agriculture, has been in association with workshops, state and regional conferences, and on-farm demonstrations and tours coordinated by ISAN, regional sustainable agriculture organizations and CES. The primary focus of these activities has been to provide learning opportunities for farmers of all farm sizes and enterprises.

ILLINOIS (Continued)

University of Illinois - Urbana

ISAN has also sponsored an on-farm-research program since 1988. One goal of the program is to develop economically competitive and sustainable farming systems through a scientifically valid on-farm participatory research program. Another goal is to facilitate the adoption of sustainable technologies and practices by Illinois farmers. Although these efforts are not specifically targeted for small farmers, the research and educational activities provide useful information.

CONTACT:

Peter Bloome 116 Mumford Hall University of Illinois 1301 W. Gregory Drive Urbana, IL 61801

Telephone: (217) 333-9025

Fax: (217) 333-1952

Electronic Mail: bloome@idea.ag.uiuc.edu@internet

INDIANA Purdue University - West Lafayette

EXTENSION FARM PROGRAMS

Purdue University does not identify small farms as a separate category in its program implementations. Our Farm Management and County Extension specialists offer their programs and services to all the farmers in Indiana, based on their individual needs.

Our Extension Educators in all our County Extension offices together with University-based Extension specialists provide a wide range of educational services to our farm audiences. Examples include programs on farm financial planning, how to get along with your lender, how to get and keep a rental farm, and how to protect your water supply. Many of these programs are applicable to, and used by, small farmers.

CONTACT:

Craig Dobbins
Purdue University
Krannert 1145
West Lafayette, IN 47907-1145
Telephone: (317) 494-9041

Fax: (317) 494-9176

Electronic Mail: cdobbins@acn.purdue.edu

IOWA Iowa State University - Ames

SMALL FARM ACTIVITIES

lowa State University has put together a package of farm management programs for small farmers. These are:

- Beginning Farmer Center
 - working with new farmers
 - two generational
- Farm Aid
 - assisting farmers with financial trouble
 - helping to evaluate alternatives
- Sustainable Agriculture
 - evaluating resources available
 - making use of all resources available especially off-farm employment
- Budgets for alternative and horticultural crops

Specific information is available on each of these programs.

Small Farm Notebook. Staff in central lowa have compiled a Small Farms/Small Scale Ag notebook for use in the county offices. This notebook includes sections on crops, livestock, engineering, economics, etc. Fact sheets included focus strictly on small scale production.

Meetings Held-Throughout the State. Southeastern lowa has had a series of meetings and round table discussions last year entitled SURVIVE 95. There was a total of five meetings held with an attendance of 95. A swine conference was held in East Central lowa of which 155 participants attended. A series of 30 Segregated Early Weaning (SEW) swine meetings were held throughout the State with approximately 600 farmers attending these meetings.

CONTACT:

Nolan R. Hartwig 108 Curtiss Hall Iowa State University Ames, IA 50011

Telephone: (515) 294-7801

Fax: (515) 294-4715

Electronic Mail: x1hartwi@exnet.iastate.edu

KANSAS Kansas State University - Manhattan

DEPARTMENT OF AGRICULTURAL ECONOMICS COLLABORATING WITH SMALL FARMERS IN THE HEARTLAND PROJECT

Within the Kansas State University Department of Agricultural Economics is the Kansas Farm Management Association (KFMA). It has one of the best sets of farmer financial and production records in North America. More than 2,000 farm operations across the State have their records kept in KFMA. Farmers get the benefit of financial and production analysis and income tax management help. The university, in turn, has an excellent database of time series data for research purposes. The database has a good representation of conventional farm and ranch operations from all areas of the State, but it does not have many farm operations in the association that are smaller farms.

Kansas Rural Center (KRC), Whiting, Kansas, is a non-governmental alternative agriculture organization that focuses on small farmers. KRC is the implementor of the Heartland Project, a project that seeks to develop a network of farmers, and others, to influence agriculture's direction in the region via cluster group formation, on-farm trials, farm tours, workshops, and other activities. Under the Heartland Project, the Department of Agricultural Economics and KFMA is collaborating with KRC to build an alternative farming database using the same parameters that KFMA is using. The objective of this exercise is to provide researchers the opportunity to do comparative analysis and other types of research concerning the economics of the operations within this group of small farmers.

Initial focus in financial and production record collection will be focused on farm and ranch operations utilizing grassland under managed intensified grazing and farm operations utilizing cover crops in their crop rotation patterns.

If, as some predict, alternative systems are to be the conventional systems of the future, this work is an important step forward. Case studies have been made of individual alternative farm operations, but this is an attempt to build a database for comparative analysis using real data. Past comparative studies have had to manufacture alternative agriculture figures. This will provide the information needed.

KANSAS (Continued)

Kansas State University - Manhattan

Constraints to this project are: (1) this is a part-time position, thus there is no sustained focus on data collection and, (2) it is only a two year project, thus limiting the opportunities to make use of time series changes in operation. Small farmers generally seem pleased by this collaboration. Some question whether conventional accounting methods can account adequately for their integrated whole farm management efforts.

CONTACT:

Fred Delaneo Kansas State University 308 Waters Hall Manhattan, KS 66506 Telephone: (913) 532-5823

Fax: (913) 532-6925

Electronic Mail: fdelaneo@ksuvm.ksv.edu

KENTUCKY Kentucky State University - Frankfort University of Kentucky - Lexington

SMALL FARM PROGRAM

The Kentucky State University Cooperative Extension Program's (KSUCEP) Small Farm Program in cooperation with the University of Kentucky Cooperative Extension Service, has some 550 farmers enrolled in an intensive, one-on-one educational program which focuses on production, farm management, alternatives, marketing, land use, and sustainable agriculture. The program targets nontraditional Extension clientele, minority farmers, and the "hard to reach". Extension paraprofessionals in 24 counties provide the vital link in this "hands-on" educational effort. The average farmer will double or triple his/her net farm income while enrolled in this program.

Cooperative efforts and grants to enhance the Small Farm Program: USDA-Consolidated Farm Service Agency (CFSA) Small Farmer and Socially Disadvantaged Farmer Project: \$1.21 million; the Tennessee Valley Authority (small farm and aquaculture demonstrations) \$26,000; the USDA-Natural Resources Conservation Service through a Department of Energy initiative (small farm demonstrations, educational materials, KSU Research Farm Sustainable Agriculture demonstrations for educating small farmers) \$70,000; USDA-Rural Economic and Community Development Service (RECD) Rural Housing Project (assessing needs in 54 non-metropolitan persistent poverty counties) \$50,000; USDA Building Capacity Grants through the KSU Community Research Service (CRS) — on-farm hybrid striped bass demonstrations were conducted as a part of this research project; the University of Kentucky Medical School's Southeast Center for Rural Health and Safety (assessing the attitudes and history of Kentucky African American Farmers related to farm related injuries and health) \$3,500.

Statewide: Educational meetings were held to educate Extension professionals and paraprofessionals, farmers and youth; topics covered include: forages and grasses, simplified record keeping systems, marketing and production (livestock, horticulture, crops, farmers' markets, direct marketing), crop, land use and farm management, high school vocational agriculture/4-H programs, and introducing urban and school children to agriculture. KSUCEP continues to include the KY Extension Sustainable Agriculture Committee, the Kentucky Farm and Home Safety Council, the Kentucky Development Council, the Kentucky AgrAbility Advisory Committee, the Kentucky Aquaculture Associates, the Kentucky Beekeepers Association, the Kentucky Horticulture Society and Vegetable Growers and working with the KSUCRS Research Farm and research staff.

KENTUCKY (Continued)

Kentucky State University - Frankfort University of Kentucky - Lexington

Farmers cooperating in the KSUCEP Small Farm Program have received the following State, regional and national awards for initiating sustainable agriculture practices as a result of the educational efforts of KSUCEP paraprofessionals.

Donnie Shaw (Metcalfe County, Edmonton, KY) won the 1993 Kentucky Forage and Grasslands Council's Spokesman Award (a presentation explaining his success in converting an eroding cropland area to an intensive grazing beef cattle operation where he now supports more than one cow-calf unit per acre on about 40 acres). In the 1994 National Forage and Grasslands Council's competition, he represented Kentucky and was runner-up to a large Canadian farmer.

Bobby Gill (Caldwell County, Princeton, KY) won the 1993 Tennessee Valley Association of Demonstration Farm Families' Farm Management Award for his success in converting a nearly bankrupt, highly eroding grain farm to a successful small dairy. The conversion included pasture development and renovation, a manure/waste disposal system to eliminate contamination of a nearby stream which fed into the city's water supply, building construction, and the development of a quality Holstein dairy herd. Bobby was not a member of the association, but was selected because of his successful TVA sponsored KSUCEP Small Farm demonstrations. In 1994, he was selected as one of three farmers to receive the Kentucky Commissioner of Agriculture's Sustainable Agriculture Award at the Kentucky Agriculture Summit. He has paid his CFSA farm loan in full and has purchased an adjoining farm. Prior to his enrolling in the KSUCEP Small Farm Program, he was not only approaching bankruptcy, but he refused and/or resented working with all local USDA agencies (CES, NRCS, RECD, and CFSA). He now has opened his farm for use in training agency personnel and local farmers.

KENTUCKY (Continued)

Kentucky State University - Frankfort University of Kentucky - Lexington

Joe Lee and Fay Fooshee (Trigg County, Cadiz; KY) won the 1994 Tennessee Valley Association of Demonstration Farm Families' Farm Management Award for their success in converting their lumberyard/milling operation to an alternative agriculture farm. They were not members of the association, but were selected because of their successful TVA sponsored KSUCEP Small Farm demonstrations. The couple were getting older and were no longer able to handle heavy sawlogs. They began incorporating vegetables, sorghum, and fruit into their farming operation, as well as raising commercial rabbits. They developed a direct marketing system for sorghum molasses and sorghum products and have become a driving force behind the Hopkinsville farmer's market. Their farm was a stop on the 1994 Trigg County Conservation Tour.

CONTACTS:

Marion Simon Kentucky State University Box 196 Frankfort, KY 40601 Telephone: (502) 227-6437

Fax: (502) 227-5933

Electronic Mail: msimon@ca.uky.edu

Curtis Absher 309 W.P. Garrigus Building Lexington, KY 40546 Telephone: (606) 257-1846

Fax: (606) 258-1991

Electronic Mail: cabsher@ca.uky.edu

LOUISIANA Louisiana State University - Baton Rouge

SMALL FARM PROGRAM

The Louisiana State University Cooperative Extension Service and the United States Department of Agriculture are engaged in a joint effort to help small farmers.

Parish Extension agents provide information and on-farm assistance for agriculture and home economics. They also provide information on youth and community development.

Agriculture.

Extension agents provide information and assistance on crops, soils, livestock, poultry, farm machinery, buildings and forestry. They also give information on pesticides, lawns, gardens, landscaping, disease and insect control.

Home Economics.

Extension agents provide information and assistance on family life, clothing, family resource management, nutrition, safety and health.

4-H Clubs.

Extension agents work with youth or organized clubs. Projects inlude clothing, foods and nutrition, child development, Junior Leadership, dairy, beef, horses, gardening, electricity, handicrafts, safety, photography and many others.

The Louisiana Cooperative Extension provides information and on-farm assistance on agriculture and home economics to all citizens of Louisiana. Small farmers and their families are participants in all of our programs. This report will highlight those programs that have been developed specifically for small farmer and/or have a high degree of small farmer participation.

Farmers' Markets and Vegetable Marketing. There are 15 farmers' markets in the State that have been developed with Extension leadership and support. These markets aid small vegetable farmers in marketing crops. Additional marketing information and assistance is available to those small farmers who market or desire to market their produce in wholesale channels and/or direct retail sales to consumers. A competent staff of horticultural specialists and county agents provide production information and assistance.

LOUISIANA (Continued)

Louisiana State University - Baton Rouge

Livestock

With the exception of a few large swine operations and the poultry industry, the Louisiana livestock industry is dominated by small farms. The average size of a typical beef cow herd is approximately 25 head of brood cows. The Extension Service provides production, management and marketing information to these small farmers through a competent staff of livestock specialists and county agents.

Farm Management and Record Keeping

We offer a complete program in farm management and record keeping including individual assistance to the small farm audience. This last year we taught classes to the Consolidated Farm Service Agency Loan Committee in six parishes. In 1996, this program will be offered statewide.

CONTACT:

Gerald Giesler
207 NAPP Hall
Louisiana State University
PO Box 25100
Baton Rouge, LA 70894-5100
Telephone: (504) 388-4081

Fax: (504) 388-2478

Electronic Mail: xtecon@lsuvm.sncc.lsu.edu

LOUISIANA Southern University and A&M College - Baton Rouge

SMALL FARM PROGRAM

The Louisiana Family Farm Technical Assistance Program (LFFTAP) Funded by USDA-Consolidated Farm Service Agency (CFSA). Project personnel advise farmers on sound practices with respect to record keeping, production practices, alternative cropping systems, marketing strategies, loan and loan repayment practices. Farmers assisted have become current with their accounts or, have graduated from USDA-CFSA to commercial banks. Wholesale and retail sales have been arranged for farmers' produce. The Housing Officer attached to the project is presently assessing housing needs for low income, disadvantaged, and elderly population.

Production of Holstein Steers as a Source of Lean Beef Under Louisiana Conditions. This project which addresses limited resource farmers who may purchase animals from stockyards and for which they must develop suitable management practices.

Agronomic Evaluation of Kenaf as a Potential Forage for Small Animal Production. Kenaf is being evaluated for yield and for use as goat feed.

Application of Crawfish Waste in Swine and Beef Cattle Rations. On-going research is evaluating the crawfish industrial waste (85%) as a cheap protein source (38%) when compared to soybean meal for the animals mentioned.

Rabbit Production Project for Louisiana. Research is being conducted to provide information on breeding, weaning, nutrition and management for small scale rabbit producers.

Herbs as Alternative Crops for Small Scale Farmers. This investigation involves cultivar selection and production practices for several herbs including: dill, basil, mint, tarragon, rosemary, oregano, thyme, and lemon grass. Marketing strategies are also being assessed.

Beef Cattle Assistance Program in Zachary, Louisiana. Sponsored by Heifer Project International for disadvantaged small farmers, this is a revolving program in which an animal is given to a farmer and the first female offspring of the animal is passed on to another farmer.

LOUISIANA (Continued)

Southern University and A&M College - Baton Rouge

Sustainable Agriculture Research and Education Program. Development of a low input multiple cropping system for small scale farmers. Legume cover crops which could reduce fertilizer nitrogen application planted in the fall are followed by spring and fall planted vegetables.

Specialty Crops. Mirliton, hot peppers (Habanero, Scotch Bonnet), bitter gourd, climbing spinach, are being evaluated to identify cultivars, and cultural practices for production and marketing in Louisiana.

Use of Spanish Needle as a Diet for Two Breeds of Rabbits in Jamaica. Spanish needle is promoted as an alternative to commercial rabbit feed because of its high protein content. Rabbits are fed with Spanish needle grown around the homestead.

Southern Food Systems Education Consortium (SOFSEC). Southern University is a member of this consortium funded by Kellogg Foundation to help chart the future of food systems education at land grant universities into the 21st Century. This is one of twelve such programs throughout the country.

Beginning Agricultural Youth Opportunities Unlimited (BAYOU). This summer, youth hands-on program is geared towards attracting bright youngsters to careers in Agriculture and Home Economics and has led to an increase in the number of graduates attending graduate schools throughout the country. Participants are recruited from throughout the southeast and include youngsters from family farms.

Other Outreach Activities. Faculty and staff make numerous presentations at farmers' meetings, addressing key issues. Faculty and staff also organize several field days annually, and establish demonstration plots and other activities.

CONTACTS:

Adell Brown Jr.
Southern University and
A&M College, CES
Box 10010
Baton Rouge, LA 70813
Telephone: (504) 771-2242

Fax: (504) 771-2862

Electronic Mail: xt1890@1suvm.bit.net

Thelma Miller
Southern University and A&M College
Department of Plant and Soil Sciences
P. O. Box 11170
Baton Rouge, LA 70813
Telephone: ((504) 771-3866

Fax: (504) 771-5728

MAINE University of Maine - Orono

SMALL FARM PROGRAM

The University of Maine Cooperative Extension has a long history of working successfully with individuals having interests in a wide variety of agricultural ventures. The county Extension office is the primary point of contact for individuals with interests in developing and carrying out their goals. County faculty can best provide local information about resources available to individuals with backup support from statewide specialists. Support is also available from staff in neighboring States as well as full access to nationwide contacts. Extension staff at both the county and State level have excellent working relationships with staff in the College of Natural Resources, Forestry and Agriculture, the Maine Department of Agriculture, Food and Rural Resources, the Natural Resources Conservation Service, and the Consolidated Farm Service Agency.

Each county Extension office is staffed with a full-time faculty member with responsibilities in Agriculture and Natural Resources. Expertise areas of individual faculty entries by county, but closely complement each other. Agricultural program areas that have regular programs delivered through county offices include all types of gardening including vegetable and small fruit production, greenhouse management, Master Gardener, Master Composter, rabbit production, dairy and livestock production, natural resource based home business development, roadside markets, and woodlot management. A number of other programs focusing on youth and families that would be of interest to small farmers are regularly offered through county Extension offices.

State specialists are very accessible through the county office to answer client questions. Specialist support is available in pest management, water quality, vegetable production and marketing, potato production, blueberries and other small fruits, apples, aquaculture, greenhouse management and woody ornamentals, dairy and livestock production, farm management, field crops, composting, and forestry.

CONTACT:

Gary Anderson 5741 Libby Hall, Room 10 University of Maine Orono, ME 04469-5741 Telephone: (207) 581-3240

Fax: (207) 581-1387

Electronic Mail: garya@umce.umext.maine.edu

MARYLAND University of Maryland - College Park University of Maryland - Eastern Shore

SMALL FARM PROGRAM

Maryland does not have a generally designated "small farms" Extension program as its programming efforts are offered to all current and potential agricultural producers regardless of the size of the operation. However, being a rapidly urbanizing State, a major program emphasis has been on the development of "alternative income opportunities" for current and potential producers. Extension programming on these topics are offered at both the county and regional levels. Two specially funded programs offered by Maryland are the Income Opportunities for Rural Areas project and the Delmarva Consolidated Farm Service Agency (CFSA) Outreach Training and Technical Assistance effort.

The Income Opportunities for Rural Areas program, based at the Western Maryland Research and Education Center (WMREC), was developed to assist new and diversified non-traditional horticulture, forestry and natural resources based enterprises. Extension personnel at WMREC identified that many start-up non-traditional enterprises had a need for updated technical and cultural information as well as business and market planning assistance. A three year grant from USDA- Rural Development Administration was obtained in November of 1993 that provided for a full-time Enterprise Consultant to work one-on-one with entrepreneurs in Carroll, Frederick, Washington, Allegany and Garrett counties in Maryland.

Assistance under this program includes technical and cultural information for specific crops, business planning and marketing, and enterprise budget analysis. To provide for this help, the program networks with numerous Extension and non-Extension information sources. An identifiable need for information and Extension programming in non-traditional areas resulted in the creation of a number of workshops and educational events. Topics covered included aquaculture, low-input and organic fruit and vegetable production, and greenhouse crops. Additional programs have been planned on mushroom production (Shiitake, Enoke, Protabella and Oyster), exotic livestock and a trout school. To support these programs, the Enterprise Consultant has produced a series of fact sheets on brambles, blueberries, gooseberries and currants, elderberries, wine grapes and a growing series on marketing.

MARYLAND (Continued)

University of Maryland - College Park University of Maryland - Eastern Shore

Also offered by Income Opportunities in Rural Areas program is a series of research and demonstration projects at WMREC and on cooperators' farms. These projects include regional hops trials, new bramble trellis systems' demonstration plots, low-input popcorn and elderberry, gooseberry and currant demonstrations. The research and demonstration plots at WMREC are featured as part of the annual WMREC field day.

The DELMARVA CFSA Outreach Training and Technical Assistance project is a cooperative project between the University of Maryland-Eastern Shore, Delaware State University and the USDA-CFSA. The CFSA Program encompasses an interstate region that includes 12 counties in Maryland and Delaware. Designed to address the decline of small farms in the region with a special emphasis on minority farmers, this program offers farm management training and technical assistance through farm visits, presentations, workshops and farm tours. Specific areas of help include farm accounting and budgeting, production and marketing, and strategic planning for the farm operation.

Specific program objectives include: (1) identification of potential program clients, (2) assessment of financial management status of these clients, (3) development and enhancement of farm management and marketing skills, (4) assistance in obtaining CFSA funding, (5) development of financial record keeping and (6) development of long-range plans for the operations to become self-sustaining. The CFSA Program offers individual growers help in financing completion of CFSA loan applications and access to the major CFSA loan programs such as Direct Farm Ownership Loans, Guaranteed Farm Ownership Loans, Direct and Guaranteed Operating Loans, Youth Loans and Sec. 504 Rural Loans and Grants for the Elderly.

CONTACTS:

K. Marc Teffeau Wye Research and Education Center P.O. Box 169 Queenstown, MD 21658

Telephone: (410) 827-8056

Fax: (41) 827-9039

Electronic Mail: KT4@umail.umd.edu

Dale Johnson
Dept. of Agri. & Resource Economics
University of Maryland
College Park, MD 20742-5535
Telephone: (301) 405-1275

Fax: (301) 314-4091

Electronic Mail: dj9@umail.umd.edu

MASSACHUSETTS University of Massachusetts - Amherst

AGROECOLOGY PROGRAMS

University of Massachusetts Extension offers agroecology programs to producers of vegetables, tree fruit and small fruit, floriculture, cranberries and nursery stock. Programs also include dairy waste management, marketing and turf and landscape management. The audience for these programs consists of full-time and part-time producers who are small to moderate in size of operation. Few farms in Massachusetts would be considered large by national standards.

There are no programs specifically targeted toward small scale or part-time farmers, but almost all program activities are designed to appeal to them as well as larger operators. There is little difference in issues and subject matter interests.

Programs are offered using a variety of methods including meetings, conferences, newsletters, bulletins, workshops etc. Many events are conducted on week-ends or in the evening to increase accessibility to those who work off the farm. Program advisory groups are chosen to represent a cross section of the audience.

CONTACT:

John Howell 210 Stockbridge Hall University of Massachusetts Amherst, MA 01003 Telephone: (413) 545-4768

Fax: (413) 545-6555

Electronic Mail: howell@umext.umass.edu

MICHIGAN Michigan State University - East Lansing

SMALL FARM PROGRAM

In this State, we have not found it beneficial to explicitly designate programs and activities for "small" farms as opposed to "big" farms, "commercial" farms or any other designation. The extreme diversity of Michigan's agriculture tends to limit the usefulness of such definitions. Two large efforts that provide significant educational opportunities for individuals involved with small scale farms.

Michigan State University has an annual Agriculture and Natural Resources (ANR) Week program on our campus each Winter. The 1995 program was conducted from March 6-10. A wide range of educational workshops and seminars held during the week include:

- Packaging Fresh Produce
- Starting a Food Business
- Michigan State Rabbit Breeders Association Annual Meeting and Shows
- Organic Food and Farming
- Manure Management
- Utilization of Poultry Litter as a Ruminant Feed
- Small Flock Poultry Management
- Integrated Farming Systems
- The Emerging Global Agri-Food System
- Beekeeping
- Dairy Goat Program
- Michigan Herb Business Association Annual Conference
- Michigan Herb Associates Annual Conference
- Walnut Council Meeting
- Biological Control of Pests
- Michigan's Wild and Cultivated Mushrooms
- Bed and Breakfast Operators Seminar
- Michigan Barn Preservation Association

Specific information is available on each of these options.

The second major programmatic effort is Michigan State University Extension's involvement in the Michigan Integrated Food and Farming Systems (MIFFS) collaboration. This is a group of agricultural and environmental organizations that came together with leadership from Extension and the Michigan Agricultural Stewardship Association, to envision and work towards more sustainable food and farming

MICHIGAN (Continued)

Michigan State University - East Lansing

systems. With initial funding from the W. K. Kellogg Foundation's Integrated Farming Systems' program, MIFFS is establishing innovation sites throughout Michigan to try out ideas for moving towards greater sustainability. Five innovation sites are currently identified. One deals with expanding the practice of intensive rotational grazing through development of a statewide network of graziers. Another is trying out various ways to compost livestock manure. A third will pilot transfer of development rights. One site is developing a model farm stewardship plan. And the fifth currently identified site is trying to implement direct marketing of farm produce in urban Detroit area neighborhoods. All of these sites will speak to interests and concerns of small scale farms. In addition, a statewide MIFFS communication network will share results from these efforts and from other IFS projects across the nation with interested individuals.

CONTACT:

Susan Smalley
Michigan State University
Extension Natural Resources
11 Agricultural Hall
East Lansing, MI 48824-1039
Telephone: (517) 355-0117

Fax: (517) 353-4995

Electronic Mail: smalley@msuces.canr.msu.edu

MICRONESIA College of Micronesia - Kolonia

SMALL FARM PROGRAM

Farm or garden activities in Micronesia are small comparatively. A typical vegetable farm is about 1/4 of an acre. Except for Black Pepper, most of our agricultural activities are either for subsistence or a less than one acre of either mono or multi cropping farms. On-going small farms in Yap are with size ranging from a few rows to about an acre.

In collaboration with the local government of Enewetak in the Marshall Islands, a food production project started two years ago and is still expanding. The project included digging the coral down to about five feet where there is some soil and where the water lens is. In Pohnpei, small farm practices are utilizing nitrogen fixing trees as supplement to chemical fertilizers.

CONTACT:

Jackson Phillip
College of Micronesia,
Cooperative Extension Service
P.O. Box 1179
Kolonia, Pohnpei, FM 96941
Telephone: (691) 320-5731

Fax: (691) 320-2726

MINNESOTA University of Minnesota - St. Paul

EXTENSION ACCOMPLISHMENTS BESIDES CROP INSURANCE WHICH WAS CFSA FUNDED

• Dairy Initiatives Related:

Developed materials for and team taught in 1994-95 series of four 4-hour workshops for dairy producer family teams at three locations. Materials included a computerized exercise in team building via a temperament analysis. A new decision case including FINPACK analysis was developed. It was also used at a four state workshop on planning for a major expansion. Both series included materials on developing a mission statement, writing a business plan and setting specific goals. Taught other Extension Educators to use these materials. The evaluations received were as good as we have ever had.

The new materials were added to the knowledge base component of the computerized decision support system used by Dairy Initiatives and 20 or so other Extension Educators. Other material development included topics on goal setting, and partial budgeting and a management style that is appropriate for farming in the information age as part of a management team. Improving communication skills materials were also developed and placed in the system.

Farm families and co-workers in other states continue to request components of the knowledge base and computer decision aids. Tools of this nature are becoming increasingly important in getting credit and making workable operating agreements.

Prepared articles for the Dairy Initiatives News Letters printed in 1994. Did several FINPACK analyses for a potential decision case dairy farm family experiencing severe cash flow stress. Consulted with them concerning debt restructuring and other options. This is a 350 cow operation which was poorly financed and advised by agents in the private sector.

Crops and Machinery Program Accomplishments:

Updated the machinery cost database including the normative custom rate database. Doanes and several other states also printed the data in them. Began an update of the Crop budgets for the 12 soil areas, potatoes and specialty crops for the 1995 distribution.

MINNESOTA (Continued)

University of Minnesota - St. Paul

• Financial and General Farm Management:

Distributed tax management and planning materials to agents. Served on the planning committee for the Tax Practitioner's Short Course.

CONTACT:

Earl Fuller
University of Minnesota
231 Classroom Office Building
1994 Buford Avenue
St. Paul, MN 55108-6040
Telephone: (612) 625-1222

Fax: (612) 625-6245

Electronic Mail: efuller@mes.umn.edu

MISSISSIPPI Alcorn State University - Lorman

EXECUTIVE SUMMARY OF ACCOMPLISHMENTS - 1994

The Cooperative Extension Program (CEP) is the major outreach component of the University. Its thrust is directed towards non-collegiate clientele. The CEP serves a mutually beneficial function of relaying the most recent and reliable findings of agricultural research to the communities and relaying feedback needed by the university in order to establish research priorities.

The resources of the Alcorn State University CEP are directed in three major areas: small farm and sustainable agriculture, youth and families at risk and revitalizing rural Mississippi.

Alcorn State University currently implements programs in 14 counties in southwest Mississippi and 5 counties in the northwestern portion of the State.

During 1994, the Alcorn State University CEP conducted 2,300 workshops and/or seminars and demonstrations. More than 12,000 small farmers, homemakers and youth participated. Extension agents also responded to 63,534 requests for assistance from clientele in targeted counties.

Educational programs conducted in 1994 included the Production of Commercial Fruit and Vegetables, Forage Crops, Beef Cattle, Farm Business Management, Marketing of Farm Products, Teen Pregnancy, After School Child Care Education Program, Youth-at-Risk, Family Life Child Development, Clothing and Textile, Nutrition, Diet and Health, and Revitalizing Rural Mississippi.

Educational programs conducted by the CEP resulted in the following accomplishments.

Agriculture

- Implemented an intensive farm management program designed to assist 375 at-risk farmers.
- Provided assistance to 310 small farmers in developing farm plans and cash flow analyses.
- Assisted small farmers in acquiring production loans totaling over \$7 million.

MISSISSIPPI (Continued)

Alcorn State University - Lorman

- Provided assistance to small farmers that produced 3,800 acres of commercial vegetables at an estimated value of 5.5 million dollars.
- Assisted home owners who grew 2,000 home gardens that had an estimated value of 1.3 million dollars.
- Provided technical assistance to small farmers who sold livestock (cattle, hogs, goats and sheep) that had an estimated value of \$7 million.
- 20,171 acres of traditional crops and 1,050 acres of alternative crops (green peanuts, sweet sorghum and sweet corn) were produced at an estimated value of \$9.6 million.

A feasibility study was conducted in southwest Mississippi on production of alternative agricultural enterprises. A second feasibility study is currently being conducted in northwest Mississippi.

The Extension Program successfully organized four small farmer cooperatives. They are as follows: Swine Cooperative, Potato Producers Cooperative, and two Commerical Fruit and Vegetable Production and Marketing Cooperatives.

There were several significant workshops/conferences held that were centered around professional training. These included: Training on the use of RUSLE with 47 people attending; Small Farmer conferences with 108 attending; Sustainable Agriculture Workshops with 75 people participating; and a Swine Field Day was conducted with 125 small farmers participating.

Accomplishments Made Directly or Indirectly by the Associate Extension Administrator Over the Past 12 Months

- Conducted management training for the Board of Directors of twelve small farm cooperatives.
- Assisted small farmers in the establishment of the following cooperatives:
 - swine cooperative, (Church Hill, MS)
 - potato cooperative, (Yazoo City, MS)
 - vegetable cooperative (Woodville, MS)
 - catfish cooperative, (Mound Bayou, MS)
 - sweet potato cooperative, (Mound Bayou, MS)

MISSISSIPPI (Continued)

Alcorn State University - Lorman

- Provided assistance to small farmers in targeted counties that resulted in an increase in gross farm income from 15 million dollars in 1993 to 23 million dollars in 1994.
- Assisted small farmers in Bolivar County to establish a 1.5 million dollar catfish operation.
- Developed farm plans and cash flow analysis which resulted in small farmers receiving farm loans totaling 6 to 10 million dollars.
- Reduced the delinquent rate on FmHA loans from 98% to 11% at the end of 1994.
- Developed concrete plans for the establishment of a poultry production and processing facility. Estimated investment will be 117 million dollars.
- Provided assistance to small farmers and local elected officials in attracting a major vegetable processing plant in Marks, MS.
- Completed the first phase of the establishment of a sweet potato production and processing facility. The industry will provide small farmers in Bolivar County a gross income of over 25 million dollars per year by the end of 1997.
- Assisted the Indiana Springs Farmers' Cooperative, (Petal, MS) in acquiring a grant for 200,000 dollars to construct a fresh vegetable processing and marketing center.
- The grant for the Conservation Research Project expired in September of 1994. The Associate Extension Administrator succeeded in getting the project extended (continue funding) at the rate of 144,000 dollars per year.
- Conduct training at Alcorn State University for USDA/Natural Resources
 Conservation Service, University Research and Extension employees on the use of
 data collected by the Conservation Research Project.

MISSISSIPPI (Continued)

Alcorn State University - Lorman

 Working in cooperation with the National Erosion Laboratory, a Staff Development Workshop has been scheduled on the ASU campus to teach soil and plant scientists from other 1890 Land-Grant Institutions, data collection techniques used by the staff of our Conservation Research Project.

CONTACTS:

Jesse Harness Alcorn State University P.O. Box 479 Lorman, MS 39096-9402 Telephone: (601) 877-6125

Fax: (601) 877-6694

Eiectronic Mail:

lholland@cypress.mcsr.olemiss.edu

William Patton Alcorn State University P.O. Box 479 Lorman, MS 39096 Telephone: (601) 877-6126

Fax: (601) 877-6219

Electronic Mail:

cxwbp@cotton.vislab.olemiss.edu

MISSISSIPPI Mississippi State University - Mississippi State

SMALL FARM PROGRAMS

Numerous small farm educational programs are presently being conducted in Mississippi. These programs are shared jointly by the University and the Alcorn Cooperative Extension Program at Alcorn State University. Many of our small farm programs in the Extension Service at Mississippi State University are centered around the swine and vegetable enterprises.

Even though the swine industry is changing rapidly, we continue to have many small farmers who remain in the swine business. Through our feeder pig sales and other educational efforts, we are able to present the latest information and technology to these producers. Some of these producers will not remain in the swine business because of the changes that are occurring. However, our educational programs can help make the transition a little easier and for those who remain in the business, our programs will be profitable for them.

We continue to have a large number of producers who are producing some 40,000 acres of vegetables. Many of these crops are produced in small farms. A majority of the vegetables are produced in about 25 counties. Demonstrations, field tours, seminars, and educational materials are all used in these counties to help these farmers produce profitable crops. We also work jointly with other agencies such as the Mississippi Department of Agriculture and Commerce, the Mississippi Farm Bureau Federation, and the Mississippi Fruit and Vegetable Growers Association to help make these enterprises and projects profitable and sustainable.

Numerous other enterprises and projects are a part of our small farm efforts but these two represent a significant part of our efforts.

CONTACT:

Bob Williams
Mississippi State University
P.O. Box 5446, Ag. Economics Dept.
Mississippi State, MS 39762
Telephone: (601) 325-2515

Fax: (601) 325-8777

Electronic Mail: jennings@agecon.msstate.edu

MISSOURI University of Missouri - Columbia

SMALL FARM PROGRAMS

University Extension cooperates with Lincoln University on small farm programs. Regional Extension Specialists work with Small Farm Family Program educational assistants. Many University Extension guide sheets at University Extension Centers apply to frequently asked questions from small farmers.

The Missouri Alternative Center (MAN Center) serves a communication center for the State of Missouri farmers, Extension staff, government personnel and people who want to begin farming, diversify their current operation, or find ways to profit from small amounts of acreage.

The Center has answered over 16,000 information requests on approximately 700 topics since opening in 1988. Such topics include: selecting and evaluating alternative enterprises; aquaculture-catfish, baitfish, numerous fruits and vegetables; sheep; goats; rabbits, exotic livestock; ratites-ostrich, emu, rheas; llamas and alpacas; elk; marketing; gamebirds-quail, pheasant, chukars; organic farming and certification; herbs; edible flowers; ginseng and goldenseal; hydroponics; greenhouses; nursery crops; alternative row crops-canola, amaranth, sunflowers; and much more.

MAC saves time and money by finding the information for people to make good decisions about alternative agricultural enterprises. MAC provides printed materials, a list of resources and resource people to contact for more information. The address is:

Missouri Alternatives Center 628 Clark Hall Columbia, MO 65211

Telephone: (314) 882-1905 or 1-800-433-3704 (Missouri Only)

Fax: (314) 882-1906

Internet: moac@ext.missouri.edu

CONTACT:

Norlin Hein 2-70 Agriculture Building University of Missouri Columbia, MO 65211 Telephone: (314) 882-9385

Fax: (314) 882-0388

Electronic Mail: norlin_Hein@muccmail.missouri.edu

MISSOURI Lincoln University - Jefferson City

THE SMALL FARM FAMILY PROGRAM IS BIG BUSINESS IN EXTENSION

Across the State, some twenty Extension educational assistants work to bolster incomes of struggling small farm families. Some of these farmers may need help applying for off-farm jobs while others may need help taking soil samples.

When Donna Gimlin wanted to learn how to set up a nursery and the related business on her farm, she asked for help from an educational assistant working with the Small Farm Family Program (SFFP). Gimlin is a typical non-typical farmer. She and some 1,000 other small farm operators from across southern Missouri are a part of Lincoln University (LU) Extension SFFP. It's one of LU's most comprehensive and far-reaching Extension efforts.

Gimlin joined the program two years ago when her son, Amos, a high school sophomore joined Future Farmers of America. She decided horticulture would be an ideal science project for Amos and a good business for her. Although partially blind (she is classified as legally blind by State Health standards), the Greenfield farmer is determined to make a go of her new enterprise. The nursery includes a new 36-foot by 96-foot greenhouse. She's in the process of completing the interior equipment and watering system.

Taking it a step at a time, her goal is to build to full production within three years without having to borrow operating funds. With the normal fits and starts, it's a tough job getting the business off to a profitable start. Nevertheless, with the help of the SFFP's she's slowly getting the business rolling-generating a market demand she can meet and selling everything on the farm.

Value Added to Small Farm Income

The value-added program was developed to increase profits from turning raw fibers into yarn and felt. Weaving, knitting, crocheting and locker-hooking are taught and also dyeing with natural dyes such as marigolds, spanish needle, walnut hulls, osage orange and other tree products. These workshops have expanded from the single event held in 1985 to the seven workshops held last year.

Helen Swartz, State sheep, goat and small livestock specialist, assisted by Renee Brown and Nancy Mallory, designed a value-added program booth for the Missouri Sheep Producers at the Missouri State Fair.

MISSOURI (Continued)

Lincoln University - Jefferson City

Some 16 sheep producers sold products totaling \$5,000 during the 10-day fair. Producers retained 90 percent of sales, and they also received orders to be filled from their homes after the fair.

In addition to workshops held throughout the State, more than 1,000 sheep producers, researchers, county Extension specialists and government personnel were helped by the LU Extension state specialist. Extension specialists furnished additional help in developing programs, festivals and field days. A field day was held in Buffalo with the help of Extension Specialist Gary Varner and a producer. They demonstrated the importance of value-added products and the promotion of wool and lamb. This field day also included four speakers on subjects of interest to local sheep producers. Producers from a 100-mile radius attended this event.

CONTACT:

Ed Taylor Lincoln University 900 Moreau Drive Jefferson City, MO 65101 Telephone: (314) 681-5524

Fax: (314) 681-5546

Electronic Mail:

taylore@ext.missouri.edu

MONTANA Montana State University - Bozeman

SMALL FARM PROGRAM

Small farm operators access many of our Agriculture programs which are not targeted exclusively to small farm operators. Most of our Agricultural Agents provide one-on-one assistance to Small Farmers when assistance is requested. We have no statewide programs that are targeting small farm operators exclusively.

We have had a small acreage task force that is examining the needs of small acreage owners. This is a growing need, particularly in the Western half of the State. As a result of this Growing need, we have just expanded a half-time horticultural Specialist position to a full-time FTE, and have given this specialist position the responsibility to give leadership to the development of educational programming that is directed at the needs of Small Acreage Land Owners.

We have also been working with the Alternative Energy Resource Organization, and the State Department of Natural Resources to provide technical assistance to Farm Improvement Clubs around the State. Most of the club members are Small Farm Operators. The general purpose of the clubs is to explore ways to improve economic and environmental sustainability of practices and enterprises. Each of the 34 clubs received a small grant to fund projects over the past 5 years.

We just completed our first annual Market Montana Symposium that was considered to be a very successful effort. Many of the exhibitors and attendees were Small Farm operators who were either demonstrating or looking for alternative enterprises.

On a smaller scale, Extension has given leadership to the development of "farmers' markets" where local produce can be marketed to local consumers.

We have several counties that offer Master Gardener training to volunteers who agree to share their newly acquired expertise with those who are seeking information. Some of those constituents are small acreage owners. Due to increased popularity in this program, we have started to deliver it to remote sites via a compressed video system. Twelve hours of training are delivered in 1 1/2 to 2 hour blocks over a seven week period in February and March.

MONTANA (Continued)

Montana State University - Bozeman

We have collaborated in the publication of a booklet that is specifically targeting small acreage owners entitled: "Tips on Land and Water Management for Small Farms and Ranches in Montana." This booklet asks pertinent questions, gives some limited information, and directs the small acreage owner to resources for assistance. The following topics are included: Planning, Weed Control, Pasture and Irrigation Management, Grazing Management, Livestock Health, Fencing Options, Water Quality Protection and Homesite Selection. This booklet is distributed by the Montana Department of Natural Resources and Conservation.

CONTACTS:

Andrea Pagenkopf Montana State University 212 Montana Hall Bozeman, MT 59717 Telephone: (406) 994-4371

Fax: (406) 994-2893

Electronic Mail:

uhdap@oscs.montana.edu

Jim Johannes
Montana State University
203 Culbertson Hall
Bozeman, MT 59717-0270
Telephone: (406) 994-1750

Fax: (406) 994-1756

Electronic Mail:

acxjj@trex.oscs.montana.edu

NEBRASKA University of Nebraska - Lincoln

SMALL-SCALE/PART-TIME FARMING PROGRAM

The University of Nebraska Cooperative Extension Division targets small-scale and part-time farming operator needs in the areas of Entrepreneurial Opportunities in Agriculture, Direct Marketing Discussion Groups, Acreage Owners Workshops, Nebraska Soybean and Feed Grains Profitability Project and Part-Time/Small-Scale video productions.

Small farm programming audiences consist of part-time, small-scale and limited resource farmers and individuals pursuing viable agricultural enterprises.

Marketing was the emphasis of an Entrepreneurial Opportunities in Agriculture Conference that offered non-traditional agricultural enterprise entrepreneurs a chance to interact and collaborate among themselves and prospective entrepreneurs. Participants learned multiple marketing strategies, financial management, value added development assistance, specialty crops and animal production and family business communication skills.

Direct Marketing and Community Supported Agriculture (CSA) workshops were conducted at three sites across Nebraska. Experienced producers shared their ideas regarding planning, record-keeping, logistics, identifying niche markets, attracting customers and marketing strategies at each workshop. Participants identified strong support for CSA near urban areas and plan to pursue developing CSA in Nebraska.

An Acreage Owner Workshop attracted over 400 families to learn about waste management, livestock husbandry, equipment safety, establishing wildlife habitat, water quality, planting windbreaks and organic farming. Impact evaluation will be mailed six months following the workshop.

The Nebraska Soybean and Feed Grains Profitability Project uses community leaders in eastern Nebraska to facilitate efficient information and technology transfer from land grant universities and private industry to producers. Producers, crop consultants, Extension staff and private industry collaboratively design, conduct, study and evaluate on-farm research demonstration comparisons and commodity marketing strategies. Large and small farm operators work together in this project, learning about each others challenges.

NEBRASKA (Continued)

University of Nebraska - Lincoln

A series of video tapes addressing part-time/small-scale farming needs are being produced. The series will target forages, specialty enterprises, farm management, environmental insights, and traditional crops and animal production.

CONTACTS:

Dave Varner University of Nebraska 444 Cherrycreek Road Lincoln, NE 68528-1507 Telephone: (402) 441-7180

Fax: (402) 441-7148

Electronic Mail:

cnty5025@unlvm.unl.edu

Elbert Dickey University of Nebraska 211 Agricultural Hall Lincoln, NE 68583-0703 Telephone: (402) 472-2966

Fax: (402) 472-5557

Electronic Mail:

cnty5021@unlvm.unl.edu

NEVADA University of Nevada - Reno

SMALL FARM OPPORTUNITIES

Nevada encompasses over 70 million acres of land of which approximately 87% is public land and 13% privately-owned. The two primary government land management agencies, the Bureau of Land Management (BLM) and the US Forest Service (USFS) are responsible for management of approximately 76% of Nevada's land. Of the 13% of Nevada land in private farms and ranches, 87% is considered rangeland, 8% cropland, and 5% woodland and other uses. Over 90% of the land in Nevada is considered rangeland, with approximately 80% of the land available for livestock grazing at certain times of the year.

The 8% of private land considered cropland includes 66% harvested crops, 26% pasture, and 8% as idle acres or other uses. Specific crops harvested in 1994 included 235,000 acres of irrigated alfalfa for hay, 270,000 acres meadow and other hay production, 17,000 acres wheat and barley, 10,000 acres alfalfa for seed production, 8,000 acres for potatoes and 5,000 acres in garlic, onions and other crops. These figures show that 92% of the cropland produced hay for livestock. Nevada's landscape is largely arid to semi-arid desert rangelands, with croplands adjacent to the limited number of rivers and streams. Rapid population growth is making water, which is the most precious commodity in the Great Basin very important. Competing uses include agriculture, urban growth, wetlands, fisheries, species protection and recreation.

Nevada with a population of approximately 1.3 million people, is the fastest growing State in the nation. Over 94% of the people live in cities larger than 25,000 people. Of this population, there are increasing numbers of suburban small farmer operating "ranchettes" in the areas surrounding Las Vegas and the Reno area. Approximately 5,500 people, or less than 1% live on Nevada's 2,700 farms and ranches. As a result, farming/ranching in Nevada is best characterized by large operations and ranchettes, with few small farms in the traditional sense in other parts of the United States.

CONTACT:

Janet Usinger-Lesquereux Nevada Cooperative Extension 2317-A Renaissance Drive Las Vegas, NV 89119 Telephone: (702) 795-0767

Fax: (702) 795-2376

Electronic Mail: usingerj@fs.scs.unr.edu

NEW HAMPSHIRE University of New Hampshire - Durham

SMALL FARM PROGRAM

By most standards, all farms in New Hampshire are small farms. The University of New Hampshire (UNH) Cooperative Extension educational programs for small farms are not really distinguishable from any other programs for farmers. We define commercial farms as anyone who is farming (whatever size) with the intent to make a profit.

The tremendous diversity of New Hampsire's agricultural industry has resulted in programs which are very diverse. Our general programming efforts cover a wide variety of areas including livestock and crop management and marketing, agricultural alternatives and diversifications, agricultural visibility, tax management and real estate planning, and soil fertility management.

Specific activities addressing these general programming efforts are numerous. Examples include a nutrient management program for agronomic crops leading to significant reduction in nitrogen and phosphorus use; demonstrations of intensive crop production practice such as row covers and high tunnels as a means of extending the growing season and increasing yields; marketing publications and workshops to help farmers examine and promote market alternatives leading to increased sales and profits: financial planning programs to assist farm families in meeting immediate needs and eventual transition of business assets; twilight crop meetings to introduce growers to innovative and productive systems; pasture improvement and management projects to help livestock producers better utilize forages; and development of best management practices for agricultural producers.

The agricultural programs serve as a wide audience in New Hampshire of which large commercial farmers are a small portion. Many of our clients operate small, part-time businesses growing and selling a wide variety of horticultural and livestock products. So, although New Hampshire does not have a designated "small farm program", most of our agricultural programming efforts reach the small farm audience.

CONTACT:

Bruce A. Marriott 122 Taylor Hall, UNH 59 College Road Durham, NH 03824

Telephone: (603) 862-2033

Fax: (603) 862-1585

Electronic Mail: bmarriott@unhh.unh.edu

NEW JERSEY Rutgers University - Cook College New Brunswick

SMALL FARM PROGRAM

The Rutgers Farm Business Management and Marketing Training and Information Program is part of a State initiative to fulfill demand and need by New Jersey farmers for management training and information. To meet these needs, we have designed a teaching program and information system to provide the farmers management, marketing, and financial skills in order to improve earning ability and thus farm viability. The training and information program includes: (1) A Farm Management/Marketing Training Program, (2) An On-Line Market Information Database, and (3) A Hot-Line Information System. Frances Adelaja was hired as program coordinator to plan and coordinate all courses and training programs.

Farm Management/Marketing Training (FMMTP).

- We formed an FMMTP advisory committee consisting of farmers, Rutgers Cooperative Extension (RCE) county agents and specialists, and representatives from Farm Bureau, USDA-Rural Economic and Community Development, New Jersey Department of Agriculture (NJDA), and Farm Credit to identify key subjects, length of courses, and suggest speakers and locations, etc. The following are accomplishments of the FMMTP to date, based on the recommendations of the advisory committee:
 - We have identified six key areas for the Fall/Spring Farm Business Management Training Sessions. They include: Farm Business Management, Marketing, Labor Management, Owning and Using Property, Financial Management, and Estate Planning. We have developed courses that emphasize these subjects. The subjects are listed at the end of this document.
 - We have developed two in-depth accounting courses. They are the "Quicken" computer software package and Farm Credit's "AGRIFAX" software package.
 - We have developed an in-depth, 4 day course on Farm Business Management including such topics as: Partial & whole farm budgeting; Farm record keeping, financial analysis, balance sheet, and income statement; Statement of cash flows; and Strategic planning, farm and family goals, and Estate planning.

NEW JERSEY (Continued)

Rutgers University - Cook College New Brunswick

- We identified four commodity groups: Livestock, Dairy, Vegetables, and Fruits (based on the list of grant recipients).
- We are developing Farm Management programs of one day or less for each of these groups and incorporating them into commodity specific programs such as: the South Jersey Fruit Production Sessions, the North Jersey Fruit Production Session, The Nurserymens' Association, the Dairy Production Session, the New Jersey Vegetables' Growers Association, etc. These courses took place the second week in December 1994 through March 1995.
- The locations identified for these courses are in Southern, Central and North Jersey.
- We have recruited well known, high powered speakers in agriculture to teach at the 4 day in-depth session and at commodity specific programs.
- On-farm management consulting will be available to farmers upon demand.
 Rutgers will also utilize the SMART computer-based decision model for individual farmer assistance. Users of the option will receive a finanical analysis print-out of their farm's economic and environmental status.
- The primary audience will be the 800 Production Efficiency grant recipients.

 However, a strong attempt will be made to promote these courses among New Jersey farmers who did not receive grants.
- Tour sites for each commodity group are being currently planned. The aim of these commodity specific tours are to identify successful farm operations that implement good management and marketing practices.

NEW JERSEY (Continued)

Rutgers University - Cook College New Brunswick

On-Line Market Information Database and Hot-Line Information System

- (OLMID & HLIS). The design and support of OLMID and HLIS involve: an automated Fax hot-line for technical information via Agricultural Agents and Extension Specialists, expanded telephone information service provided by the USDA Bridgeton Office, and a computerized on-line information database provided by the Department of Agricultural Economics and Marketing, at Cook College, Rutgers-The State University of New Jersey.
 - An automated Fax-on-demand systems has been installed in Morris County Extension Office and is currently in operation. Operation continues to expand.
 - Telephone marketing news reports via the Bridgeton office have been expanded and new phone-lines, recorders, and fax machines have been installed. The number, frequency and locations of marketing service reports have been expanded.
 - A broad base advisory group has been established for Farmers, Agriculture Business and Support People (USDA, Farm Bureau and University), to act as a resource to determine the types, and forms of data that should be collected and maintained in an on-line database system.
 - Advisory group has helped determine information to support in the areas of Fruits and Vegetables, Grains, Livestock and Grains.
 - A close interactive relationship has taken place between USDA Trenton personnel, Farm Bureau, personnel from the Department of Agricultural and Marketing Department at Cook College in terms of sharing information and communication ideas.
 - A user database and on-line report menu, open to all farmers and other agricultural support people in the State, has been maintained since April 20, 1994 for detailed summary reports of the Vineland Auction.

NEW JERSEY (Continued)

Rutgers University - Cook College New Brunswick

- The on-line report menu has been expanded all Summer and currently supports agricultural weather reports, terminal and shipping point reports throughout the country for fruits and vegetables, dairy, grain and livestock. The reports have continually been changed and expanded in response to feedback from in-State users. For example, specific reports from local auctions such as Hackettstown and Sweedsboro; New York; and Pennsylvania as well as more distance markets have been added or deleted all Summer. All reports have been maintained on a daily basis or as available.
- Vineland fruit and vegetable summary reports and selective terminal and point reports have been faxed daily to 23 users who have requested this information at no cost.
- All of the above information in the on-line menu has been patched into the Rutgers Cooperative Extension Network which provides information to all Counties, College Specialists, Extension personnel, and many other College personnel. This amounts to about 200 accounts.

CONTACT:

Robin Brumfield
Rutgers University - Cook College
Department Agricultural Economics
111 Cook Office Building
P.O. Box 231
New Brunswick, NJ 08903
Telephone: (908) 932-9306

Fax: (908) 932-8887

Electronic Mail: brumfield@aesop.rutgers.edu

NEW MEXICO New Mexico State University - Las Cruces

SMALL FARM PROGRAM

Extension's foundation for providing educational guidance to New Mexico's small scale or "limited resource" famers centers primarily on a need to fulfill their often unique but yet diverse needs so that they will be able to enjoy quality lives. This important objective is most likely realized by providing educational programs that will allow them to expand their income opportunities by demonstrating through the educational process, how to make small acreage or their businesses most profitable, through specialized techniques most appropriate to their situations.

Extension's basic involvement in servicing this important audience includes the following areas:

- Promotion of Sustainable Agriculture Through Educational and
 Demonstration Projects Teaching and demonstrating the techniques and
 practices necessary for small scale row crop production, with special emphasis on
 (a) specialized machinery useful on small vegetable operations,
 - (b) cultural practices necessary to produce vegetables with limited equipment, and
 - (c) transplanting and direct seeding techniques.
- Organic Farming Teaching and demonstrating the principals and practices of organic farming, with specific emphasis on (a) soil building using available, non-chemical inputs, (b) non-chemical weed and pest control, (c) rotations and their relation to long and short term farm planning.
- Irrigation Efficiency Education in the proper management of irrigation practices to maximize crop production. Included are: irrigation efficiency, delivery systems, crop irrigation requirements and water quality.
- Fruit Production Education on cultural practices such as integrated pest management and fertilization programs to increase the production of fruits such as apples.
- Testing Growing Potential of Speciality Crops Determining the growing
 potential for specialty crops such as lettuce, cole crops, and small grains by setting
 up test plots and demonstration projects. Testing the extended production periods
 of these crops is especially important in higher elevations.

NEW MEXICO (Continued)

New Mexico State University - Las Cruces

- Food Processing Coordinated efforts to promote the processing of local produce into food products and in the location of prospective markets for these products. Included in this program are comprehensive technical and business-type programs that allow the prospective or expanding small entrepreneur to succeed in their own ventures.
- Promotion of Farmers' Markets Farmers' markets have been and are prime sources for direct marketing of fresh produce and agricultural bi-products from local regions to community consumers and tourists. Included in this diverse area are (a) training in direct marketing techniques, (b) contracting with local farmers to market their produce, often by forming cooperatives, (c) establishing post harvest storage and processing facilities that will allow them to extend their market periods.
- Artificial Insemination and Cattle Pregnancy Education Educational programs in artificial insemination, pregnancy testing, nutritional needs, management, general herd health and sire selection are included in the curriculum.
- Cut Flower Production Involves education on the proper growing practices including appropriate soil balancing and harvesting techniques for fresh flowers. Techniques on the preparation of dry flower arrangements is also available. Marketing opportunities are also investigated.

CONTACTS:

John Waelti New Mexico State University P.O. Box 3003 Las Cruces, NM 88003 Telephone: (505) 646-3215

Fax: (505) 646-5975

Electronic Mail:

jwaelti@nmsuvm1.nmsu.edu

Frank Holquin
New Mexico State University
P.O. 1059
Los Lunas, NM 87031
Telephone: (505) 865-9561

Fax: (505) 866-5321

NEW YORK Cornell University - Ithaca

FARMING ALTERNATIVES PROGRAM

Promoting Self-Help Solutions for Farm Families.

We helped farmers develop the entrepreneurial skills and knowledge they needed to improve profitability and decrease environmental impacts. In 1994, our Sixth Annual Transitions Conference brought together over 150 farmers and agricultural professionals, to learn about new enterprise opportunities, technologies and management strategies. We conducted research on production and marketing innovations to assist producers to stay in business and meet environmental goals. Our award-winning Guide to Evaluating the Feasibility of New Farm-Based Enterprises continues to help farmers manage their resources wisely.

Highlights of the Year (1994)

- Responded to over 1,400 inquiries from farmers and others seeking help with agricultural diversification and development a 40% increase over 1993.
- Produced three new research-based publications, including a landmark study of Farmers Markets and Rural Economic Development.
- Published the Sustainable Farming Compendium, a four-volume collection of resources for agricultural educators.
- Organized a highly successful Sixth Annual Transitions Conference and Farm Tour.
- Initiated strategic planning for the future of New York agriculture, involving New York State agricultural leaders, environmentalists, educators and researchers.
- Organized new Cornell Working Group on Sustainable Food/Agriculture Systems.

CONTACT:

Judy Green Cornell University 408 Warren Hall Ithaca, NY 14853

Telephone: (607) 255-9832

Fax: (607) 255-9984

Electronic Mail: jg16@cornell.edu

NORTH CAROLINA North Carolina A&T State University - Greensboro

SMALL FARM PROGRAMS

Farm Opportunities Program. The North Carolina (NC) Cooperative Extension Program, in collaboration with North Carolina State University (NCSU), focuses on assisting the small, part-time, limited resource, and small scale family farmers in improving the quality of their lives by providing them with intense, one-on-one, on farm educational assistance. Most of the educational assistance is provided by agricultural technicians/agents who enroll farmers in the Farm Opportunities Program. In its 21st year, the Farm Opportunities Program continues to assist farmers in improving their agrarian situation, by: (1) providing them with managerial assistance, (2) helping them to acquire leadership skills, (3) acquainting them with the services available from various agencies, and (4) exposing them to alternative enterprises that could be adopted on their farms.

In addition to the educational services provided by the Farm Opportunities Program, small scale agricultural producers living in North Carolina are taking part in the following small farm programs:

The NC Farm Machinery Maintenance Project. The NC Farm Machinery Maintenance Project was a five year NC Department of Energy funded project. The \$490,000 project enabled the NC Cooperative Extension Program to conduct energy audits and provide on-site Farm Machinery Maintenance Workshops in 86 of NC's 100 counties. During the project's tenure, 1,054 tractors and 932 chemical implements were audited. The project saved NC farmers \$917,360 and 12.94 trillion British Thermal Units.

The Small Farmer Outreach Training and Technical Assistance Project. The Small Farmer Outreach Training and Technical Assistance Project provides on-site farm and financial management instructions to 121 socially disadvantaged farmers. Since the inception of the program, 80% of the program participants have become current in their accounts. Ten counties are involved in the Outreach Training and Technical Assistance Project.

NORTH CAROLINA (Continued)

North Carolina A&T State University - Greensboro

Small Farm Week. Since 1987, the NC Cooperative Extension Program has recognized and paid respect to the large number of small, part-time and limited resource family farmers who toil the land of the State. Recognition is bestowed upon the farmers by: (1) presenting the G. L. Dudley Small Farmer of the Year Award to one of NC's small farmers (a plaque and \$600), (2) holding a Small Farmers Recognition Luncheon, and (3) the placing of the Small Farmer of the Year picture on G. L. Dudley Small Farmer of the Year Calendar. Small Farm Week is proclaimed by the Governor, James B. Hunt and the Commissioner of Agriculture, James Graham.

The Dean of the School of Agriculture Small Farms Tour. Each year, the Dean of the School of Agriculture Small Farms Tour exposes campus based faculty/staff, agribusiness persons, agricultural agencies' personnel, and students to techniques and alternative enterprises that have been adopted by small farmers. Nearly 100 individuals participated in the two-day tour that is hosted by various counties each year. The 1995 tour will be hosted by Watauga, Avery, Yancey and Mitchell counties.

AgrAbility Project. In 1993, the NC Cooperative Extension Program joined hands with NCSU, the Society of Easter Seals and USDA for the purposes of providing educational resources to disabled farmers. The program will assist farmers in identifying resources that will improve the quality of their lives. One-on-one assistance, networking, small group discussions and other appropriate methodology will be used to deliver the program to program participants.

Assessment of Utilization and Local Community Perceptions of Rural Economic Community Development (RECD) Housing Programs in North Carolina. The Housing Research project is a collaborative effort among the departments of Housing Research, Agricultural Economics, and the NC Cooperative Extension Program. Extension persons assigned to the Special Program Unit will assist the housing researchers in: (1) Identifying housing leaders in 22 consistent poverty counties in NC for the 502 and 504 RECD programs, (2) Collecting data via mail survey, telephone survey and focus group interviews, (3) Contacting Community Leaders, Civic Groups, Social Service Agencies, Elderly Groups, Public Service Entities and Extension Service Advisory Groups, and (4) Utilizing the findings to assist communities in helping low income families and individuals with their housing needs.

NORTH CAROLINA (Continued)

North Carolina A&T State University - Greensboro

Ways to Grow is a program partially funded by the Kellogg Foundation and conducted by the North Carolina A&T State University Cooperative Extension Service. It is a statewide program for small farmers that provides grants of up to \$3,200 each to 25 farmers. The program emphasizes the production of alternative crops including organic vegetables, herbs, meat goats, etc.

CONTACT:

Dan Lyons
North Carolina A&T State University
Agriculture and Natural Resources
P.O. Box 21928
Greensboro, NC 27420-1928
Telephone: (919) 334-7957

Fax: (919) 334-7298

Electronic Mail: lyonsd@rhema.ncat.edu

NORTH CAROLINA North Carolina State University - Raleigh

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE SMALL FARM PROGRAMS

The Small Farms Program of North Carolina Cooperative Extension Service combines the efforts of specialists, agents, technicians and volunteers to deliver information and technical assistance to small farmers. Our Small and Limited Resource Farmers state major program is chaired by two specialists—one each from North Carolina State University (NCSU) and one from North Carolina A&T State University (NCATSU). The following items are specific impacts of our Small Farms programs.

Specifically targeted programs at NCATSU include Small Farms Week, which includes educational programs and demonstrations on alternative income opportunities for small and limited resource farmers and minority land loss prevention. The week is highlighted by recognition of the Small Farmer of the Year.

Educational programs conducted by both NCSU and NCATSU have had significant impact on the lives of small and limited resource farmers, including:

- 124 farmers accessed USDA services for the first time, realizing about \$95,000 of benefits.
- 119 small farmers adopted a farm record system.
- About 300 farmers explored alternative income enterprises.
- 153 farmers diversified their operations with new enterprises, resulting in an additional \$650,000 of income.
- 153 farmers improved marketing skills and techniques, worth over \$290,000.
- 90 minority farmers who own about 20,000 acres learned about ways to retain their land resource base.

At NCSU, a major portion of the federal Small and Part-time Farms funds are devoted to supporting competitive projects aimed at benefitting small and limited resource farmers. During the past year, these funds have supported educational and promotional materials for marketing produce in community farmers' markets, developing affordable post-harvest handling procedures, using poultry litter as a nutrient source for horticultural crops, evaluation of alternative crops and cropping systems, and a grazers' school for small farmers. In addition, we have had significant program activity in developing program delivery systems that are particularly suited to this audience.

NORTH CAROLINA (Continued)

North Carolina State University - Raleigh

We will continue to combine our complementary efforts at NCSU and NCATSU to deliver effective programs to small, part-time and limited resource farmers. The overall aim is to help them use information effectively to improve their livelihoods, their families and their communities.

CONTACT:

Roger G. Crickenberger North Carolina State University Box 7602 Raleigh, NC 27695-7602 Telephone: (919) 515-3252

Fax: (919) 515-3135

Electronic Mail: rcricken@ricks.ces.ncsu.edu

NORTH DAKOTA North Dakota State University - Fargo

SMALL FARM PROGRAM

Extension programs in North Dakota have been promoted without regard to farm size. Farmers have few opportunities for off-farm employment in North Dakota making small part-time farming impractical. There has been some effort to emphasize value added agriculture which may offer some opportunity for farmers with a smaller land base to develop economically viable units. Some examples include:

Buffalo Processing Plant. This is a cooperative owned by buffalo producers. Some of these producers might be considered small farmers. This has contributed to a significant growth in production of buffalo in the State and offers more potential profit than cattle ranching.

Potato Processing Plant. A potato growers cooperative was formed to guarantee a supply of potatoes for processing in an area that was not previously raising potatoes. There is an effort to add the processing of other vegetables to this plant which may open opportunities for other farmers, both large and small.

Hog Farrowing Cooperatives. Several smaller hog producers formed a cooperative to own and operate a large farrowing operation and the individual members finish the feeder pigs. This has been an opportunity for producers to compete with the large scale hog operations.

CONTACTS:

Dwight Aakre North Dakota State University 301 Morrill Hall Fargo, ND 58105 Telephone: (701) 237-7378

Fax: (701) 237-7044

Electronic Mail:

daakre@ndsuext.nodak.edu

Duane Berglund North Dakota State University 301 Morrill Hall Box 5437 Fargo, ND 58105 Telephone: (701) 237-8135

Fax: (701) 237-7044

Electronic Mail:

dberglund@nd54ext.nodak.edu

NORTHERN MARIANAS Northern Marianas College - Saipan

SMALL FARM PROGRAM

In the Commonwealth of the Northern Mariana Islands (CNMI), our whole program is devoted to small scale farmers. The economies of scale brought about by mechanization is nonexistent in our tiny islands. The average farm ranges in size from 0.5 to 5 hectares or approximately 1 to 15 acres.

Most livestock produced is for family consumption only. This includes poultry, swine and cattle. Currently, Saipan has only three commercial poultry operations and only one or two part-time swine producers. There are no commercial cattle/beef producers on the island.

Having a mild tropical climate, Saipan vegetable and ornamental producers are able to grow and harvest throughout the year. Most of our programs are designed to provide technical assistance to these producers in the areas of crop protection, soil and water conservation, Low Input Sustainable Agriculture, and others.

Virtually, all of the Farmers in the CNMI earn most of their income from off-farm sources. Farming is a weekend activity for those still working, and a full-time job for those who have retired.

All Extension programs are conducted by the Northern Marianas College in Saipan, Rota and Tinian.

CONTACT:

Ray S. MacDuff Northern Marianas College Agriculture Life Sciences P.O. Box 1250 Saipan, MP 96950

Telephone: (670) 234-9024, Ext. 1704

Fax: (670) 234-0054

OHIO Ohio State University - Columbus

EXTENSION SMALL FARM PROGRAMS

Overview. Ohio has a very large number of small/part-time farmers who are gainfully employed off the farm. Many of these individuals seek research-based information that is convenient and easily adapted to their available resources and management system.

Formation of Extension Teaching Teams. The development and formation of interdisciplinary teams are aimed at improving communication within our own Extension faculty and to better meet the needs of our commodity groups and farmers we serve. The following teams have interacted closely with small farms to enhance profitability and sustainability.

Forage Utilization/Integrated Resource Management Team - Primary focus has been on Management Intensive Grazing (MIG) and forage species selection. Team members have organized twelve (12) statewide Grazing Councils made up of seasonal dairy producers, beef (cow-calf/stockers), sheep producers. Bimonthly newsletter, entitled "Amazing Graze", written by team members, is disseminated to all Ohio agents/farmers and agri-media. Regional/District field days and twilight "walk-the-pasture" meetings have been extremely successful.

Swine Educator's Team - Team members have focused on assisting small - moderate sized swine producers in forming alliances which assist in purchasing inputs and the development of cooperative marketing. Pork Performance Plus is a comprehensive educational program aimed at family farmers to improve record keeping and profitability.

Consumer Hort Team - Team members have utilized district/statewide in-services to assist in the development of educational programs on vegetable/floral gardens for the small/part-time producer. Internet newsletters, "Buckeye Yard and Garden" and the "Almanac", are sent weekly during the growing season to assist with potential grower problems and to discuss alternative solutions.

"Management Excel" Team - Many of our teams will utilize "Management Excel" principles to develop intensive educational programs that are aimed at increased profitability. To date, Dairy Excel, Hort Excel, Vegetable Excel, Pork Performance Plus, and Grain Management Excel are active programs that are being utilized by many of our Extension's clientele.

OHIO (Continued)

Ohio State University - Columbus

Internet Assistance/Access - A computer specialist has been assigned responsibility to be responsive to calls/questions from county agricultural agents regarding alternative agriculture systems and information requests from Ohio's small farm clientele. This position has competency to search the Internet for the latest in new information and will maintain a hard copy library of more than 1,000 publications.

CONTACT:

Steven Baertsche
32 Ag Admin Building
Ohio State University
2120 Fyffe Road
Columbus, OH 43210
Telephone: (614) 292-4077

Fax: (614) 292-3747

Electronic Mail: Baertsche.1@osu.edu

OKLAHOMA Langston University - Langston

Langston University Small Farmer Outreach Training and Technical Assistance Project In Cooperation with the Consolidated Farm Service Agency

Langston University was awarded \$298,765 to continue the Small Farmer Outreach Training and Outreach Technical Assistance Project for the Fourth Year. The project is aimed at minority and limited resource borrowers who are socially disadvantaged, including women, African American, American Indian, Hispanic American, Asian American, Pacific Islanders in eighteen targeted counties in Oklahoma. The eighteen counties include: Adair, Bryan, Carter, Cherokee, Creek, Kingfisher, Logan, McCurtain, Muskogee, Okfuskee, Oklahoma, Pontotoc, Pushmataha, Seminole, and Wagoner.

The overall aim is to provide training and technical assistance to improve the profitability of the enterprises of borrowers and applicants. Major emphasis is placed on making borrowers reach a level where they can pay back and finally graduate from CFSA loans. Through the outreach training program, socially disadvantaged applicants are identified and informed about the services available to them from Langston University, CFSA, other USDA agencies, and elsewhere. In education both applicants and borrowers are trained in production, management, marketing, financial analysis, and record keeping. Workshops and seminars are held throughout the targeted counties and everyone is invited and is free to attend. The staff works with individual borrowers and applicants to help them package their applications appropriately and efficiently. In the alternative enterprise emphasis, the staff stresses that today's small farmer should seriously consider getting into alternative enterprises that create their own niche in the market.

Presently, the staff is developing on-site farm demonstration projects. Through the cooperative efforts of the USDA-Natural Resources Conservation Service Liaison Officer at Langston University, soil conservation structures are being constructed at farms and ranches.

CONTACTS:

Doreatha E. Gaffney 308 Jones Hall Langston University Langston, OK 73050 Telephone: (405) 466-3341

Fax: (405) 466-3364

D. Chongo Mundende Langston University P.O. Box 730 Langston, OK 73050 Telephone: (405) 466-2929

Fax: (405) 466-3364

OKLAHOMA Oklahoma State University - Stillwater

SMALL FARM PROGRAMS

Activities that were conducted by Agricultural Agents in the last program year are listed below:

Introductory programs for small farm products interested in:

Emus - Bryan County (March and July Hughes County (February)
Pottawatomle County (February)

Watermelons - Hughes County (February)

Poultry - Bryan County (June)

Leflore County (November)

Swine - Haskell County (November)

Hughes County (January)

New & Beginning Farmers Loan Program—Haskell County (February) Seminole County (January)

The above were meetings intended to acquaint producers with these agricultural enterprises. These types of endeavors are often considered by small farm owners. Production meetings were also conducted in most counties for producers already involved in these enterprises.

There were the usual educational offerings in the areas of farmer' markets, home and small farm horticulture. . . also, farm visits, telephone conversations, and newsarticles as well as meetings.

The following is a list of some of the small farm programs that are on-going in the Northeast District:

OKFUSKEE COUNTY

- Mr. Nate Wheaton is a local producer with about 160 acres of low-quality, depleted soil. He has worked extensively with Extension on recommendations for low cost pasture establishment and management practices.
- Mr. Paul Custer has worked extensively with Extension in his vegetable production operation. He started with a good sized garden, then advanced to 7-10 acres of vegetables to include construction and operation of his own packing shed. Extension assisted him in all phases of his operation.

OKLAHOMA (Continued)

Oklahoma State University - Stillwater

- MCINTOSH COUNTY has several educational program including demonstrations on watermelon production. Clients of small farm operations include Nix Storm and Rayfield Robertson.
- OTTAWA COUNTY has established a farmer's market in the past year.
- CHEROKEE COUNTY Chad Cross, Ag Agent, has a client working with a hydroponic greenhouse. The operation is called Kathy's Gourmet Farm - she has completed IPM Greenhouse program. The farm also has an exotic bird enterprise.
- DELAWARE COUNTY has Christmas tree growers.
- TULSA COUNTY conducted a RATITE Conference from March 31-April 1, 1995

Extension Programming Related to Small Farm Activities:

Christmas Tree Production: Recognizing Christmas trees as a potential alternative in Oklahoma, the Extension Forestry Program helped organize a few existing growers into the Oklahoma Christmas Tree Association (OCTA) in the early 1980s. Since that time the OCTA has grown to 150 members. Most Christmas trees are grown on small farms. The average acreage per farm in Christmas trees is 5 to 10 acres. Extension programming has included working closely with the OCTA Board; establishing a Christmas Tree demonstration area in cooperation with a non-government organization; pruning and shearing demonstrations; development of a five-part videotape series on the production process; a series of factsheets introducing new technical aspects of growing Christmas trees; a 1 1/2 hour national videoconference funded by the National Christmas Tree Association on marketing; and a yearly collection of sales data so the industry can monitor growth in sales and production. As a result, the Christmas tree industry in Oklahoma now contributes over \$500,000 annually to the State's economy. For the four year period from 1989 to 1993, sales of Oklahoma-grown Christmas trees increased over 105%.

• Residue management workshops south of Tyrone, Oklahoma. Specific areas include soil and water management, best management practices involving herbicides, compaction, new technology in equipment and chemical application, fertility and fertilizer placement, surface residue as it affects soil erosion, and other areas as they relate to crop production on the high plains.

OKLAHOMA (Continued)

Oklahoma State University - Stillwater

 Alternative crop production in Cimarron County including on-farm experiments and demonstrations with black-eyed peas, turnips, grapes, blackberries, mungbeans, gabonza beans, chick peas, and cool season grasses. The same type of on-farm demonstrations are in progress in Texas County which also include early and late planted soybeans, potatoes, and corn.

Sheep Production

- Assistance for State Sheep Marketing Cooperative allows Small Producers Greater Price Leverage
- Many Phone Calls and Printed Material Information Requests

Alternative Feed Resources

- Provide Feedstuff Nutritional Values and Feeding Recommendations for Use of Many Alternative Crops to Supplement the Major Classes of Livestock

Provide Livestock Production Information

- Provide Printed Material and Management Recommendations to Small Producers in Formal Meetings, Personal Phone Calls and One-on-One Farm Visits.
- Provide Available Background Information on Alternative Livestock Production including Angora Goats, Ostrich, Emu, Boer Goats and Poultry.
- Presented Beef Cow/Calf Production Information at a Meeting Hosted by Langston University That Targeted Small Operations, Minority Producers and Socio-Economically Disadvantaged Producers.

OKLAHOMA (Continued)

Oklahoma State University - Stillwater

Some of the activities of the Washita County Extension Office dealing with small farm/alternative enterprises are as follows:

Angora Goat:

- A study of parasite control with county producer. This was a 6-week study.
- A body condition study of angora nannies to see the percent of kid and hair weight produced.
- Conducted 3 Billy Soundness Clinics. This program looked to see if Billies were able to function. This is still being done at Langston University Goat Station.
- Conducted an area meeting with Vet Medicine for area producers on nutrition and health.
- TV media of Angora Goat production in Western Oklahoma.
- Stocker Lamb: Conducted stocker lamb meeting with Jerry Fitch on alternative ways to use wheat pasture (4-county meeting).
- Ratite Conference: This program attracted 425 attendees from 6 different States and 40 counties in Oklahoma. The program evaluation revealed that 72% had never attended an Oklahoma Cooperative Extension Service program. We are still receiving requests for conference materials.

CONTACT:

Ray Campbell
Oklahoma State University
245 Ag. Hall
Stillwater, OK 74078-0469
Telephone: (405) 744-5398

Fax: (405) 744-5339

Electronic Mail: okdivag@osu.cc.bitnet

OREGON Oregon State University - Corvallis

SMALL FARM PROGRAMS

Report of Accomplishment, March 1995.

Introduction

Agricultural production in Oregon is highly diverse and includes over 200 commodities of commercial importance. Commercial importance is defined as an agricultural commodity with over one million dollars in gross farm sales. Many of these commodities are of high value on a per acre basis. As a result, producers often can profitably utilize small parcels of land for production of high value crops or animals. Additionally, many small farms operate as hobby farms providing a high quality of life in a rural setting. The climate, soils, and water availability promote and enable this diversity, with many farms including multiple enterprises of livestock, crops, and forest production. With many options available and changing markets, producers are frequently looking for new enterprises and require information and education to develop new ventures. A further issue affecting small farmers is that land use laws restrict division of farm and forest lands and the building of a new home without a viable farm/forest enterprise activity. This results in great demands for information on farming from new producers. These issues combined with dramatic increases in population. especially in small communities surrounding urban centers, set the stage for Oregon State University to provide valuable educational programs.

The Oregon State University Extension Service serves the fast growing number of small farms across the State in a variety of ways. These include: classes, workshops, field tours, publications, and answering individual questions on a broad range of topics. Educational program topics include: production technologies, safety (food, farm equipment, and chemical use), integrated pest management, environmental stewardship, integration of varied interests in the management of natural resources, regulatory issues in the many aspects of running a small business, public policy issues, and community development.

Assistance to Small and Part-Time Farmers: In Central and Western Oregon as in other parts of Oregon, there is a dramatic increase in the number of small, part-time farms. This has resulted in increased demand for information on a wide variety of production and management topics. Extension Agents have developed the "Living on a Few Acres Program" which addresses soil fertility, irrigation, farm taxes, potential enterprises, sheep and beef production, and pasture management. The program has assisted thousands of land owners in the effective management of their natural

OREGON (Continued)

Oregon State University - Corvallis

resource. A publication "Choosing a Small Farm" has assisted citizens in determining what can be produced on smaller land parcels. In addition, numerous counties have put on "Small Farm Day" programs. These programs are usually set up with a wide range of classes provided throughout a whole Saturday. Even in small rural communities, over 200 people attend these events.

Numerous Farm and Ranch Tours were held around the state where diverse audiences came together to learn more about preservation of environmental quality, natural resource management, farming, and ranching. These tours have been a significant means for developing a better understanding of urban rural interface issues and environmental and natural resource issues as they relate to specific local communities. Bridges of common understanding are being built between groups which in the past have had adversarial relationships.

CONTACT:

Bill Braunworth Strand Agriculture Hall #138D Oregon State University Corvallis, OR 97331-0817 Telephone: (503) 737-1317

Fax: (503) 737-3178

Electronic Mail: braunwob@ccmail.orst.edu

PENNSYLVANIA Pennsylvania State University - University Park

SMALL SCALE AND PART-TIME FARMS ARE BIG IN PENNSYLVANIA

Small Scale Farms make up the majority of farms in Pennsylvania. The average farm size reported in the 1992 Census of Agriculture for Pennsylvania was 160 acres. However, almost three-fourths of these farms have less than 160 acres and more than one-quarter have less than 50 acres. In small-scale farming situations, the farm often is not the primary source of family income, but it may be an important secondary source. Statewide, 22% of the owners of farms containing more than 160 acres have principal occupations other than farming, compared to 53% of operators with farms containing less than 160 acres. More than 80% of Pennsylvania farms with part-time operators have less than 160 acres.

Informational Needs Differ. Small-scale and part-time farmers need specifically designed materials and programs. Also, farmers who have off-farm employment need to have farm-related meetings scheduled at night and during weekends. County extension agents are faced with numerous requests from people with little knowledge of agricultural marketing and production practices. The requests often are for information on alternative and nontraditional agricultural enterprises suitable for small-scale or parttime farms. This suggests that a series of publications on traditional and nontraditional enterprises should be of considerable value to both county agents and the operators of small-scale and part-time farms. Currently, we have published a series on Alternative Agriculture. The list is as follows: Bison Production, Boarding Horses, Spring Lamb Production, Accelerated Lamb Production, Off-Season and Holiday Lamb Production. Feeder Lamb Production, Earthworms, Dairy Goats, Swine, Enterprise Budget Analysis, Highbush Blueberries, Ostriches, Veal, Rhea, Rabbits, Milking Sheep, Fruit and Vegetable Marketing for Small Scale and Part-Time Growers, Pheasant, Dairy Heifer Replacements, Emu and Red Deer, Fallow Deer, Elk, Sweet Corn, Broccoli, Strawberries, Raspberries, Snap Beans, Peppers, and Financial Assistance for Small and Part-Time Farmers.

CONTACTS:

George Greaser
Pennsylvania State University
214 Armsby Bldg
University Park, PA 16802
Telephone: (814) 863-8639
Fax: (814) 865-3746
Electronic Mail:

ggreaser@psupen.psu.edu

Jayson Harper
Pennsylvania State University
214 Armsby Bldg
University Park, PA 16802
Telephone: (814) 863-8638
Fax: (814) 865-3746
Electronic Mail:
jharper@psupen.psu.edu

PUERTO RICO University of Puerto Rico - Mayaguez

SMALL FARM ACTIVITIES

The 1992 Census of Agriculture for Puerto Rico reported 22,350 farms, 20,692 farmers and 826,893 acres of farm land. The average farm size is 37 acres.

The main crops are coffee, sugarcane, plantains, pineapples, bananas, vegetables, citrus, starchy products and ornamentals.

We also have dairy and beef cattle, poultry, hogs, rabbits, goats and fish enterprises in the livestock sector. Dairy production is our first agricultural industry. It contributes about 30% of the total income to the government from the agricultural sector.

Extension gives the technical assistance to the farmers through methods such as training, meetings, field demonstrations, tests, conferences, farm visits and short courses. There are 114 agricultural agents and 30 Extension specialists in the agricultural program. We have 69 offices across the Island.

We work in sustainable agriculture with small farmers. A workshop was held with participation from private companies, personnel from Natural Resources and Conservation Service, researchers from the Agricultural Experiment Station and Extension Specialists.

We are developing, in coordination with the Agricultural Experiment Station, the guidelines of all the practices suitable for each crop in order to acquaint farmers with sustainable agriculture. We are also establishing demonstration farms in the area of sustainable agriculture.

CONTACT:

Rafael Olmeda University of Puerto Rico College Station Mayaguez, PR 00708 Telephone: (809) 265-2415

Fax: (809) 265-4130

RHODE ISLAND University of Rhode Island - Kingston

SMALL FARM PROGRAM

When we think about what constitutes a small farm in any of our agricultural States, it would not be hard to make a case that 95% of farms in Rhode Island are small. Yet on our "Rhode Island scale" we would have to drop below 25 acres (and probably less) to be considered "small". Thus, the bulk of our programming is useful to small or part-time farms.

Small acreage farms - and there are several in Rhode Island who consider themselves farmers although cultivating 2 acres or less - tend to be run by part-time farmers or to be focused on high value crops, or both. Two crops where small farms dominate in our State are Christmas Trees and field grown cut flowers. Better than 50% of our Christmas Tree plantations are farmed by either part-time or retired persons who are looking for additional income to supplement their wages or retirement pay. These growers have unique needs because few of them have any farm experience prior to starting their plantations. To answer these needs, we have offered growers a Christmas Tree IPM program for several years. Recently, we have made some progress in identifying bio-control organisms capable of checking a couple of major pests of Christmas Trees.

We have also been nuturing the beginnings of a cut flower industry in Rhode Island. We live in a populous State a short distance from major metropolitan areas, so the high value of this crop combined with the potential market and reduced acreage needed for a decent income make this crop very promising for the small farmer. While the notion of growing flowers was unheard of in Rhode Island since the improvement in transportation in the fifties and sixties, now information on this crop is frequently requested mostly by small acreage growers as well as by larger farmers seeking a profitable niche market. High value crops are a universal need brought on by high land prices, but this crop "tested" in the State by small farms before it aroused the interest of more established enterprises. (It is possible for the small farmer to help his bigger brother!)

We have in Rhode Island two active centers involved in horticulture: The Cooperative Extension Education Center whose focus is home horticulture and the Rhode Island Center for Commercial Agriculture whose minimum limit is only \$3,000 worth of sales. These two centers are discussing their relationship to each other so that the gardener

RHODE ISLAND (Continued) University of Rhode Island - Kingston

who evolves into a hobbyist for, say, perennials can then take one more step toward marketing and end up as a small farmer. We seek to create a path for that economic transition to happen with adequate support and without client entering a stage of limbo between gardener and farmer. We seek, in effect, to grow our own small farms.

CONTACT:

Bob Miller 113 Woodward Hall University of Rhode Island Kingston, RI 02881 Telephone: (401) 792-2474

Fax: (401) 792-4017

Electronic Mail:

gwz101@uriacc.uri.edu

SOUTH CAROLINA Clemson University - Clemson

SMALL FARM ACTIVITY

Clemson University operates numerous programs aimed at small farmers. The majority of these are conducted through individual county agent offices. Examples of these programs include a major thrust on meat goat production and marketing. South Carolina has an estimated 68,000 meat goats and a single production meeting/field day attracted over 300 people last year. Vegetable production, both summer and winter, has also been in the spotlight in South Carolina. With vegetables, small farmers have been taught everything from production practices, handling, packaging, to marketing.

In addition to individual programs that are commodity oriented, the Edisto Research and Education Center (one of five outlying centers within the State) conducted the Third Annual Edisto Farm and Home Day. This is a one day event aimed at providing agricultural experience to the everyday citizen. In 1994, programs included home horticulture and landscaping, conservation tillage, farm pond management, forestry, farm safety, ag. economics, beef cattle and forages, swine, poultry, goats, horses, irrigation and plastic mulch, beekeeping, wildlife, and commercial vegetables. The Fourth Annual Edisto Farm and Home Day will be held August 26, 1995. The Pee Dee Research and Education Center will be initiating a Home and Garden Field Day on September 16, 1995 at Florence, South Carolina this year. Their primary focus will be on home horticulture.

CONTACT:

Mike Sullivan
Clemson University
Edistol Research & Education Ctr.
Blackville, SC 29817

Telephone: (803) 284-3343

Fax: (803) 284-3684

SOUTH CAROLINA South Carolina State University - Orangeburg

SMALL FARM FAMILY PROGRAM

South Carolina State University is committed to improving the quality of life of limited resource families of rural South Carolina. During Fiscal Year 1994, more than 13,338 contacts were reported under the small farms initiatives. Some of the program activities addressing concerns and issues impacting upon the livelihood of the small farm family are as follows: The Small Farmer Outreach Training and Technical Assistance Project (SFOTTAP), in one year contacted 3,699 farmers and assisted 244 rural families in applying for housing loans. Twenty-two housing loans, 2 youth loans, 2 emergency loans and 2 operating loans have been approved. This year, the project has been expanded from 6 to 26 counties. This project has also been instrumental in a small rural town's receipt of \$110,000; The Heifer Project International (HPI) was created to help small beef production practices. Currently, there are 77 contracts for passing on animals, 44 animals and a pass on 34 animals has occurred. The farmers involved in the project have realized an increase in their calf crop, wean and sell heavier calves and also produced an overall high quality animal for the market. We have submitted an HPI proposal seeking funding to start a meat goat production project using the farm demonstration approach. Through the demonstration farm, we will demonstrate readily transferable technology to low-income farmers; the drip trickle irrigation projects are one-acre demonstration projects installed by small farmers. The purpose is to create and demonstrate state-of-the-art production systems which would be economically feasible for limited resource farmers; the Forestry demonstration project is a series of forest management demonstrations. They are designed to provide a large number of landowners and their professional advisors, information needed to make sound management decisions and serve as an outdoor classroom for youth. Topics include timber stand establishment, shiitake mushroom production and natural regeneration. Demonstration projects include a stream crossing for the stream side management zone, a best management practice demonstration of erosion control practices and the direct seeding of loblolly pine demonstration; Project Green is a greenhouse and composting operation managed by the Pee Dee Indian Association. The 1890 program worked with the association to write the grant. The project collects organic waste from municipal sources and compost it into saleable material. The association will also operate a greenhouse and, sell bedding plants and starter seedlings to local retailers. This addresses the issue surrounding the closing of landfills while providing an excellent source for alternative methods of waste disposal and supplementing income through the increased demands of the lawn and garden industry; Through the empowerment zone/enterprise community program (EZ/EC),

SOUTH CAROLINA (Continued)

South Carolina State University - Orangeburg

several communities received assistance with the preparation of applications requesting designation as an empowerment zone and/or enterprise community; Three farm related organizations received grants with the assistance of an 1890 Research and Extension staff member. The Rural Advancement received \$12,000 from Share Our Strength to create partnerships with community agencies and local farmers to develop emergency surplus food distribution centers, The Sea Island Farmers Cooperative received \$3,480 and the Williamsburg/Clarendon Small Farmers Cooperative received \$12,000 plus a matching grant of \$12,000; An agriculture agent planned and organized a public forum with a panel of community residents, DHEC, county council and the Natural Resources Conservation Service. Seventy-six citizens attended the landfill issue meeting which has become known as the "Redhill Community Water Project". The agent organized the community through leadership training that included the problem identification and resource inventory process. The results of the citizens efforts was the awarding of a grant from the Governor's office of \$158,000; The Greenhouse Project is designed to assist limited resource farm families with greenhouse construction and enterprise. The intent of this project is to: (1) lower cost of planting of those crops that they now purchase, (2) enable them to plant earlier, (3) have healthier plants and (4) provide the opportunity to supplement farm income. Also, there have been more than 100 inquiries and 30 requests for additional information. Of these, seven persons have requested on-site visitations and assessments for future greenhouses. Follow-up has been conducted with the seven individuals and 2 greenhouse structures are nearing completion; And an Agriculture Agent was recently honored by the citizens of District 30 and the State of South Carolina for his "unselfish service" to the citizens of two counties.

CONTACTS:

Oscar Butler, Jr.
South Carolina State University
P.O. Box 8103
Orangeburg, SC 29117
Telephone: (803) 536-8555

Fax: (803) 536-7102

Margaret Johnson South Carolina State University P.O. Box 7336 Orangeburg, SC 29117 Telephone: (803) 536-8465

Fax: (803) 536-7102

SOUTH DAKOTA South Dakota State University - Brookings

SMALL FARM PROGRAM

South Dakota has approximately 34,000 farms. Based on the 1992 census for Agriculture, 74 percent of the farmers produce from \$0 - \$100,000 of agricultural products. Approximately 53 percent of the farmers are in the \$50,000 to \$99,000 production range.

South Dakota Cooperative Extension Service has an outstanding record for being in contact at the grass roots level and providing educational programs that address their problems and needs. Cooperative Extension Service offers educational programs as direct teaching meetings and workshops in all 66 counties. We will have 240 plus programs that are focused on crop and livestock (beef, dairy, hogs, sheep and equine) production, farm management, marketing, farmstead planning and remodeling and livestock health.

We also offer educational information through the print and electronic media. We are one of the few States that has its own private television program called "Today's Ag". This program is aired every Sunday evening for 42 weeks out of the year.

Although most of our educational programs are geared towards the mid-size farm operation, the large commercial farmers and ranchers participate in and use Extension educational programs.

Each summer, Extension hosts 15-20 field days and/or group tours across the State. Focus is primarily on crop production including weed control, insects, fertility and crop varieties. Attendance by producers ranges from 60-400 depending upon the site.

CONTACT:

Larry Tidemann
South Dakota State University
Cooperative Extension Service
Ag. Hall 152, Box 2207D
Brookings, SD 57007
Telephone: (605) 688-4147

Telephone: (605) 688-4147

Fax: (605) 688-6347

Electronic Mail: ag07@sdsumus.sdstate.edu

TENNESSEE Tennessee State University - Nashville University of Tennessee - Knoxville

SMALL FARM PROGRAMS

Tennessee's MANAGE program is designed to teach farm families to carefully evaluate their individual situation and assist them in improving their quality of life. County Extension agents and area specialists have provided intensive farm and financial planning assistance to more than 7,000 farm families. All families interested in assessing their management strategies and alternatives can benefit from participating in the intensive portion of the MANAGE program. Twenty percent of the MANAGE program participants gross less than \$20,000 per year.

Farm families who participated have emphasized that they want the MANAGE program to be available in the future. The following results from a mail survey indicate their vote of confidence in the MANAGE program:

- Ninety-eight percent of the families said the program is useful.
- Ninety-six percent of the participants stated they would utilize the program again.
- Ninety-seven percent of the families stated that resources for Extension financial management educational programs should be increased or maintained.
- Ninety-eight percent of the families agreed that Extension financial management educational programs are valuable during non-crisis times.

Agri-21 Farming Systems is a new program initiated in 1993 to teach the sustainable development of farms and transfer that information in an effective manner to professional agricultural workers, farm families, and the general public. This program involves teams of Extension agents, specialists, technical agricultural workers, agribusiness representatives, and farmers. These cooperating farms serve as applied classrooms for teaching sustainable agriculture. Sustainable agriculture involves an agriculture that is environmentally sound, competitive, and profitable. Fourteen Tennessee farms, involving twenty-five farm families, are in the process of achieving the objectives outlined for Agri-21. For example, in the first year of Agri-21, one farm family discontinued renting 800 acres of lower quality cropland and increased no-till acreage, thereby allowing them to sell one tractor and some excess equipment.

TENNESSEE (Continued)

Tennessee State University - Nashville University of Tennessee - Knoxville

The family also purchased irrigation equipment to achieve zero discharge from swine lagoons. The swine operation was improved by replacing sows with higher quality gilts. The Tennessee Valley Authority and Agricultural Extension Service are cooperating with other agencies and farm families in conducting this innovative and effective educational program.

A farm tour conducted on ten small farms was directed toward improving production practices and marketing of small fruits and vegetables. Thirty small farmers are following recommended spraying schedules to control insects and diseases. They are also being advised on pruning. Fruit size has increased tremendously. A winter swine meeting was held with 45 swine producers in attendance. Producers received information on swine production and management, nutrition, disease and health practices. Five swine producers purchased boars from purebred producers to upgrade their herds and breeding program. Three small farmers were assisted with five no-till demonstrations this past year. These farmers are attempting to increase profits by reducing fertilizer and herbicide costs while maintaining or slightly decreasing the yield obtained from a field.

To assist small farmers in gaining the latest production information, agronomic demonstration plots were established in Shelby County. No-till corn and soybean variety studies and herbicide studies were conducted and a farm day attracted more than 55 small farmers, professionals, and agribusiness representatives.

Beef producers marketing cattle through video board sales continue to receive \$2-4 per hundred pounds more than they could get by other marketing methods. In one area sale at Columbia, eighty-seven beef producers received over \$248,998 more for their cattle than they would have received without this marketing concept. Other producers are currently marketing through other regional and nationally televised sales. Not only have these producers increased their income, but their production has become more market focused resulting in increased prices.

TENNESSEE (Continued)

Tennessee State University - Nashville University of Tennessee - Knoxville

dairy farming is a signficant and dramatically changing part of Tenneessee agriculture. This change is occurring in production systems, investment requirements, environmental concerns and the need for enhanced overall business management. Extension Services in Tennessee and Kentucky are cooperating in preparing, pilot teaching, and evaluating an interdisciplinary dairy systems costs, returns, and production requirements manual and computerized database. Farmers, agricultural organizations, and rural leaders in Tennessee and Kentucky are actively involved in the development, evaluation, and use of the training materials. The SARE/ACE program has invested \$90,000 in support of this project.

CONTACTS:

Ray Humberd University of Tennessee P.O. Box 1071 Knoxville, TN 37901-1071 Telephone: (615) 974-7112

Fax: (615) 974-1068

Electronic Mail:

pb143538@utkvm1.utk.edu

Alvin Wade Tennessee State University 3500 John A. Merritt Boulevard Nashville, TN 37209-1562 Telephone: (615) 963-5533

Fax: (615) 320-3490

TEXAS Prairie View A&M University - Prairie View

SMALL SCALE FARM PROGRAM IN NACOGDOCHES COUNTY, TEXAS

Nacogdoches county is located in the central region of deep East Texas. Its resources include dominantly loamy upland soils with 22 percent of the total county area used for pasture and 6 percent used for cropland. The county enjoys a moderate climate with an average annual rainfall of 49.3 inches, a growing season of 240 days, and annual total growing degree days of about 6,029.

The complement of favorable climate and fertile soils gives rise to a predominantly agricultural economy comprised mainly of timber, poultry, forages and beef cattle. Hay sales will account for over 6.3 million dollars of farm revenue during 1994 with beef cattle sales projected at over 15.8 million dollars for the year.

As suggested by the 1992 census figures, Nacoghdoches county has 980 farm or ranch families with 701 farmers working away from home in an occupation other than farming. The average size of farming or ranching operations is 193 acres with various portions of most properties in standing timber.

A program begun in 1992 involves beef cattle producers of limited operating scale in an effort by the Cooperative Extension Program to increase net farm income to families. The impact and effectiveness of this program are assessed by an ongoing comparison of participants who learn new skills, implement new methods of production, and increase their net farm income either by improved cost management practices or increased sales of farm products.

Specific production practices used in this program include improvements in herd health management, forage quality and use efficiency improvements through rotational grazing, and fundamental record keeping and cost accounting methods. Each producer involved begins their participation at a level that utilizes whatever form of records is available. The participant continues a sequential process of education through hands-on experiential and participative steps in evaluating current production practices and adopting low input step-wise improvements in utilizing present resources to greater efficiency.

TEXAS (Continued)

Prairie View A&M University - Prairie View

Small Scale Farm Program in Nacogdoches County, Texas

The program will soon enter its fourth year with third year cooperators seeing an average increase in animal stocking rates of 17 percent greater than those rates used prior to their participation. To date, all families participating in this program for a period of more than six months, have increased net family income due to reduced costs of production and, often, as a result of increased sales of farm products.

CONTACT:

Alfred Wade Prairie View A&M University P.O. Box 3059 Prairie View, TX 77446-2867 Telephone: (409) 857-2023

Fax: (409) 857-2004

Electronic Mail: nbaines@pvcs.pvamu.edu

TEXAS Texas A&M University - College Station

EXTENSION PROGRAMS/ACTIVITIES FOR FARM/RANCH CLIENTELE

The Texas Agricultural Extension Service conducts educational programs for diverse audiences. Most educational programs are not targeted to specific farm or ranch size categories except in East Texas and near urban center where small farms are most prevalent. Our farm management economists and county Extension agents offer their programs and services to all farmers and ranchers in Texas in response to clientele identified issues and problems. Anyone interested in programs available for small farmers and ranchers in Texas should contact any of the local county Extension offices.

Most farm business management programs, therefore, stress fundamental concepts that apply to all farms/ranches regardless of size. Likewise, most educational efforts of production specialists do not differentiate program content for small farm managers, even though Texas has large numbers of small farms and ranches. According to the 1992 Census of Agriculture, 60,250 ranches in Texas had fewer than 20 mother cows. These would be a combination of part-time and limited resource operations. Thus, small farmers and ranchers are an integral clientele of the Extension Service's total program and commitment to rural Texas.

However, small farms and ranches have unique problems that are addressed occasionally by special programs and materials. Many of these are delivered by faculty of Prairie View A&M University (Texas' 1890 university) as part of their emphasis on providing assistance to limited resource farmers. The following are examples of small farm/ranch programs recently completed by Extension faculty at Texas A&M's Agricultural Extension Service.

Programs/Activities:

Production and Financial Performance Analysis Programs for Managers of Small Farms/Ranches - To remain competitive, managers of small farms/ranches must improve decision making skills, more fully appreciate the impact production decisions have on financial performance and enhance their analytical skills to more fully utilize available information. Management record keeping and performance analysis tools were developed, and published in notebooks, and were distributed through county extension agents to small farmers/ranchers. "Production and Financial Record Keeping and Performance Analysis System" includes forms and educational materials that assist producers with keeping both production data and financial transactions

TEXAS (Continued)

Texas A&M University - College Station

throughout the year. It provides for year-end analysis and development of performance measures. This resource is designed for farms/ranches with multiple crop and livestock enterprises. "Individual Cattle Performance and Inventory Management Records" expands on several sections included in the first resource, but emphasizes commercial beef cattle production. This notebook includes forms for keeping information on individual animals, for annually analyzing her productivity and for developing appropriate financial statements.

Making More Money - This project involved developing a non-credit correspondence course comprised of ten fact sheets specifically designed to teach financial management concepts to owners/managers of small farms. This pilot effort as an alternative Extension approach to supplying farm business management education allowed business managers and families to better manage their resources and enhance their financial fitness at their own pace.

Integrated Small Farm/Ranch Field Days - Several integrated interdisciplinary small farm/ranch field days are held throughout the year to illustrate production technologies, to discuss marketing trends/practices and to emphasize the importance of financial management, especially enterprise analysis. Highly integrated farms in Texas often include several enterprises including beef cattle, forestry, farm pond fish production, hay, fruits and vegetables and many other specialty and forage crops. Much of the result demonstration work carried on in East Texas is conducted with small farmers and ranchers.

Impact of Agriculture on the Local Economy - Many programs for owners of small farms/ranches develop into discussions on the impact that agriculture has on local economies. Economic development discussions and activities focus on the impact that home based as well as commercial agricultural businesses can have on communities. Development of road-side and farmers markets is a key element to much of this success that small farmers have had in Texas. Publications supporting small

TEXAS (Continued)

TEXAS A&M University - College Station

farm horticultural production and marketing include: A Guide to Successful Direct Marketing. A Guide to Marketing Organic Produce, and A Handbook for Establishing and Operating Farmers' Markets. These "for sale" publications are available from Charles Hall at (409) 845-1771.

CONTACTS:

Greg Clary
Texas Agricultural Extension Service
P.O. Box 38
Overton, TX 75684
Telephone: (903) 834-6191

Fax: (903) 834-7140

Electronic Mail: g-clary@tamu.edu

Roland D. Smith
Texas Agricultural Extension Service
Dept. of Agricultural Economics
Texas A&M University
College Station, TX 77843-2124
Telephone: (409) 845-1751

Fax: (409) 845-3140

Electronic Mail: rdsmith@tamu.edu

Gerald Cornforth
Texas Agricultural Extension Service
Route 2, Box 1
Stephenville, TX 76401
Telephone: (817) 968-4147
Fax: (817) 965-3759

Electronic Mail: g-cornforth@tamu.edu

UTAH Utah State University - Logan

SMALL FARM PROGRAM

There is no official small farm program in Utah. However, there are a wide range of activities conducted by Utah Cooperative Extension Service (CES) that benefit the small farmer. Utah's agriculture is becoming more diverse as the horticultural farm land (fruits and vegetables) and the movement of farms to lands that are marginal for horticultural crops.

At the same time, urbanization has created the need for new farm programs. One to five acre farms are established as urban residents move to the country. Owners with little background in agriculture are interested in raising livestock (cattle, horses, etc.) and other farm products. These new farmers are finding it difficult to obtain information on animal, plants, and general farm care. This transition from urban to rural living has lead to the development of a pasture management handbook that can be used to improve forage productivity on small farms. Additional information on animal care, plant production of other crops and farm product diversification are needed. An example is the small farmers' interest in development of "green industry" businesses that can increase family income.

Other small farm activities supported by Utah's CES include:

- Fruit and Vegetable Production
- Greenhouse and Nursery Production
- Landscape Design and Maintenance Programs
- Master Gardener and Home Garden Programs
- Exotic Animal and Plant Programs (Ostrich, Emu, Fish, Native Plants, Herbs)
- Poultry, Dairy, and Livestock Programs
- Added Value Programs for Farm and Garden Products
- Farm Buildings, Equipment and Faciltiies
- Farm Economics and Marketing
- Soil, Water and Land Quality and Preservation

UTAH (Continued)

Utah State University - Logan

Many farmers in Utah are looking at diversification of production to meet market demands and stay competitive. Since many farm families gain some income from off farm employment, Utah CES is working with individuals and farmer groups to solve their unique problems. This will keep individual and industry farmers competitive, productive, and insure that an enhanced quality of life is maintained in the Inter-mountain West.

CONTACT:

Dan Drost
Department of Plants, Soils, and Biometeorology
Utah State University
Logan, UT 84322-4820
Telephone: (801) 797-2258

Fax: (801) 797-3376

Electronic Mail: dand@ext.usu.edu

VERMONT University of Vermont - Burlington

SMALL FARMS

There are approximately 5,000 farms in the State of Vermont (of which approximately 2,000 are traditional cow dairy operations). Of this number, 75-80% would qualify as "small farms" under some definition. Most of our "small" farms are family owned and operated. The University of Vermont (UVM) Extension System has tried to implement a systems approach in addressing their needs which requires that a number of specialists and a number of agencies may be asked to collaborate on any one operation.

Programs/Activities:

Women's Ag Network - This is a collaborative project funded by USDA-Consolidated Farm Service Agency (CFSA) to assist individuals in evaluating agriculture and agrelated enterprises as viable career/lifestyle choices. The program partners include the University of Vermont Extension System, the University of Vermont Sustainable Agriculture Center, and Trinity College of Vermont Women's Small Business Project. The network focuses on self-assessment; borrower education; business plan development; and follow-up technical assistance.

Borrower education programs - Educational programs are being offered to assist new and would-be farmers to get the financial management knowledge they need to make sound business decisions and to be responsible borrowers.

Pasture Management Programs - The pasture management project assists farmers to improve their pasturing methods. Using rotational grazing to get maximum benefit from pastures is helping a number of Vermont farmers to reduce operating costs. There are also support programs that assist farmers to consider the conversion to a seasonal operation as an option.

Holistic Resource Management - Although this program is not specifically designed for small farms there are a number of small operators that have attended the trainings available. It is simply another management tool available to interested farmers.

Is Expansion for You? Programs - Extension Specialists have arranged workshops specifically to help farmers decide if expanding is a viable option for their operation.

VERMONT (Continued)

University of Vermont - Burlington

Diversification/Supplemental Income Opportunities - There are a number of ongoing activities/publications designed to help farmers decide if a diversification plan is viable for them-currently dairy goats are a primary target. There is also support available for assisting small farms identify unused/underused resources that might become supplemental income opportunities.

Dairy Herd Improvement Association (DHIA) Herdbook Clinics and Herdbook Extra - These programs combine Extension Specialists, DHIA supervisors/testers, and farmers in an intensive one-on-one farm analysis using DHIA records to spot trouble spots. Alternative management strategies are discussed and follow-up on-farm visits can be arranged.

Tax Workshops and Inter-generational Transfer Workshops - Workshops offered by Extension specialists update farmers on changes in tax laws and assist farm families decide how to transfer ownership of the farm to a family member.

Managing Stress - Workshops and materials are available to help farm families improve inter-personal communication skills and to better manage stress.

CONTACT:

Mary Peabody University of Vermont Extension System 590 Main St. Burlington, VT 05405-0059

Telephone: (802) 656-3276

Fax: (802) 656-8874

Electronic Mail: mpeabody@clover.uvm.edu

VIRGIN ISLANDS University of the Virgin Islands - St. Croix

SMALL FARM PROGRAM

In the Virgin Islands, the majority of farms are considered small-scaled farms functioning with limited resources. According the latest Virgin Island Census of Agriculture, there are approximately 350 farms in the territory. Approximately 64% of these farms are less than 10 acres in size.

The majority of these farmers are low-income, part-time farmers as the farm often is not the primary source of family income, but an important secondary source. Agriculture is typically very diversified with farms having a wide variety of fruits, vegetables and/or livestock.

The University of the Virgin Islands (UVI) Extension Service Agriculture and Natural Resources (ANR) Program offers these small-scaled limited resource farmers training, technical assistance, ideas and advise through the following projects/activities:

Sustainable Agriculture

This project focuses on educational activities to inform farmers and homegardeners about sustainable agricultural practices, including drop irrigation, crop rotation, mulching, manuring, composting, terracing, integrated pest management, etc., which will enhance their agricultural productivity while encouraging the conservation and continued use of our natural resources.

Soil Characterization

This project assists farmers and gardeners in maintaining highly productive soils through accurate farm mapping, soil analysis and the proper storage and use of chemical and organic fertilizers and amendments. The Cooperative Extension Service Diagnostic Lab provides soil testing both chemical and physical properties of soils, irrigation water and plant tissues.

Small Livestock Improvement

This project addresses the needs of persons with sheep, goats, swine, poultry and rabbits, or any combination of the above. Assistance is given in the areas of identification, nutrition, health, breeding soundness, selection and management techniques.

VIRGIN ISLANDS (Continued)

University of the Virgin Islands - St. Croix

Breeders Exchange

The Breeders Exchange Program (BEP) is a locator service that assists farmers in the location and identification of superior breeding stock within the islands and the selection of animals to improve their herds. The BEP works with farmers in all phases and species of livestock production.

Integrated Pest Management

Providing insight into the most effective and least environmentally harmful methods to solve pest problems on farms and home gardens is the major aim of this project. Preventive measures and other alternatives to chemical pest control are emphasized.

Pasture Management

The pasture management program encourages livestock farmers to use the appropriate management practices to maintain a healthy, productive pastureland while conserving our natural resources.

CONTACT:

Clinton George
University of the Virgin Islands
Extension Agriculture and Natural Resources
RR02, Box 10000, Kingshill
St. Croix, VI 00850
Telephone: (809) 692-4071

Fax: (809) 692-4085

VIRGINIA

Virginia State University - Petersburg Virginia Polytechnic Institute and State University - Blacksburg

THE VIRGINIA SMALL FARM EXTENSION PROGRAM

The Virginia Cooperative Extension Program, Virginia State University (VSU), and Virginia Polytechnic Institute & State University cooperating, provides educational opportunities to small and part-time farmers. The leadership for the program is provided by Virginia State University. Educational opportunities are provided in non-traditional enterprises, sustainable agriculture production systems and financial management that are applicable to the resources of a small or part-time farm unit.

Dissemination of information is done through conferences, field days, tours, seminars, result demonstrations, and one-on-one assistance. Extension Specialists conduct annual conferences in Forest Stewardship, Ginseng, Hydroponics, Dried Flowers, and Aquaculture production with a total of five hundred plus participants.

Three major field days; Crop, Aquaculture, and Youth, are conducted annually on VSU's Research and Demonstration Farm with a total of one thousand participants.

Seminars, tours and workshops are conducted in alternative enterprises throughout the year on a regional basis that attracts five hundred participants. Thirty on-farm demonstrations are conducted State-wide in the areas of best management practices and non-traditional enterprises. Technical assistance in financial management is provided to sixty USDA-Resource Economics and Community Development Socially Disadvantaged Borrowers.

A Small Farm Extension Program is being conducted in two Southwest Virginia counties. Three para-professionals provide educational assistance to one hundred small and part-time farmers in production of non-traditional crops and livestock as well as non-traditional crops.

The VSU's Extension Program is primarily federally funded. Consequently, there are no hard dollars to fund on-farm demonstrations and regional seminars that would better serve this target audience. Existing on-farm demonstrations are funded through special grants, etc.

Outreach, Training and Technical Assistance for Small Farmers in Virginia. VSU Cooperative Extension is offering a program to assist farmers in obtaining Consolidated Farm Service Agency (CFSA) loans, improving management skills, and enhancing profitability of their farm businesses. Intensive training and technical assistance are available free of charge under the sponsorshiop of CFSA.

VIRGINIA (Continued) Virginia State University - Petersburg Virginia Polytechnic Institute and State University - Blacksburg

Assistance is available for:

- Completing application for farm ownership and operating loans
- Identifying CFSA inventory land to purchase
- Preparing Farm and Home Plans
- Developing farm record system for individual farm operations
- Analyzing financial situation of farm businesses, and
- Evaluating existing and new alternative farm enterprises.

Persons eligible for this program include:

- CFSA farm program borrowers
- Small farmers
- Socially Disadvantaged Farmers who are interested in obtaining CFSA farm ownership loans.

CONTACTS:

Mitchell Patterson Virginia State University P.O. Box 9081 Petersburg, VA 23806 Telephone: (804) 524-5834 Fax: (804) 524-5967 Electronic Mail:

mpatterson@vtm1.cc.vt.edu

Jerry Jones Virginia Polytechnic Institute 217 Hutcheson Hall Blacksburg, VA 24061-0449 Telephone: (703) 231-6704 Fax: (703) 231-5545

Electronic Mail: gmjones@vt.edu

Albert Essel Virginia State University P.O. Box 9081 Petersburg, VA 23806 Telephone: (804) 524-5491

Fax: (804) 524-5967

Electronic Mail: aessel@vtm1.cc.vt.edu

WASHINGTON Washington State University - Pullman

EXTENSION EDUCATIONAL PROGRAMS FOR SMALL FARMS

Washington State University Cooperative Extension does not identify small farms as a separate category in its formal program planning and reporting. However, faculty do a substantial amount of educational work with owners of small farms. This is a growing audience as urbanization creates more small parcels of land, particularly in the western and northeastern parts of the State where rapid population growth continues. In this report the term small farm, includes forest and range land as well as other types of agricultural land uses. Many small farms in Washington include highly productive forest and pasture-range lands. Holistic or integrated approaches are promoted by most extension educators.

Extension educators in almost all of the 39 extension offices in the State provide a wide range of educational services to small farm audiences. These services include: answering specific technical questions, providing publications, referring owners to other experts, providing economic-business information, and identifying pests and providing information on their control. Some extension faculty offer intensive programs tailored to the needs of small farm owners. Whenever possible, programming incorporates stewardship, environmental, and sustainable concepts.

Examples of specific programs directed toward small farm audiences.

Country Living. A year-long series of 35 workshops on 28 topics aimed at people with small rural ownerships on which they reside. Topics include: livestock, forestry, pastures, pest control, wildlife, permits, native plants, wells, ponds, self-sufficiency, and others. These workshops have been popular and effective, and the program has been expanded to meet increasing demand.

Forest Stewardship. This statewide educational program, intended primarily for owners of non-industrial private forest land, has been operating effectively for several years. It includes specific workshops, tours, and training sessions tailored to the highly varied forest conditions throughout the State. The stewardship program is collaborative with several State and federal agencies and often involves private consultations, loggers, conservation organizations, and forest products industry representatives. Major emphasis is placed on holistic, integrative management approaches, including ecosystem management and the development of long-term and land-resource management plans prepared by the land owner through an educational

WASHINGTON (Continued)

Washington State University - Pullman

process called "coached planning." Content of educational programs is broad to meet the highly varied needs of landowners: wildlife management, native plants, watershed management, forest health, income generation, public policy, regulations, taxation, agro-forestry, measurement, logging practices, silviculture, and many more. A highly successful logger accreditation program is directed toward contract loggers, many of whom harvest on small woodlands. This program includes such topics as: ecosystems management, wildlife management, forest health, and basic silviculture.

Small Farms Team. Extension educators from counties in parts of three States, Washington, Idaho, and Montana, work together to exchange curricula, factsheets, and other teaching materials, and plan jointly sponsored and taught programs for small farm owners. They have developed information packets on various topics of mutual interest, reducing duplication and making better use of professional resources.

Master Volunteer Programs. Several county-based extension educators have developed effective volunteer programs through which they extend their programs. The master livestock volunteer program currently operates in several western Washington counties, and plans are under way to expand it to all counties on the west side of the State. Related to this program, several faculty publish county or regional newsletters aimed at small farm owners, including livestock interests. Also, one faculty has developed a dairy goat program that includes volunteer education training and a newsletter.

Sustainable Agriculture Program. The statewide sustainable agriculture program, led by the Center for Sustaining Agriculture, involves all aspects of agriculture, including small farms. Small farms are recognized as an increasingly important component of the sustainable agriculture program due to their collaborative influence on the quality of natural resources and quality of life and community. Some current focal topics are integrated pest management, holistic resource management, consumer-producer relationships, and composting.

WASHINGTON (Continued)

Washington State University - Pullman

Water Quality. Several water quality extension education programs conducted through the State have small landowners as an important audience. Waste management and proper use of agricultural chemicals are examples. The Country Living program mentioned above contains several workshops aimed at water quality on rural homesteads. Home*A*Syst, an action program for safe drinking water, is being used throughout the State and is proving valuable to owners of small farms. Washington's Home*A*Syst program is a modification of Farm*A*Syst, a successful program developed jointly by Universities of Wisconsin and Minnesota and the Environmental Protection Agency. Although this self-help program focuses on drinking water, its foundation is protection of groundwater in general.

CONTACT:

Phil Crawford 411 Hulbert Hall Washington State University Pullman, WA 99164-6230 Telephone: (509) 335-2885

Fax: (509) 335-2926

Electronic Mail: crawford@wsu.edu

WEST VIRGINIA West Virginia University - Morgantown

EXTENSION SERVICE SMALL FARM PROGRAMS

Water Quality - Extensive efforts are underway in the Potomac Headwaters watershed project to reduce and prevent water quality impairments arising from agricultural and urban lands to the Potomac and Shenandoah Rivers and their tributaries within West Virginia. The major part of the poultry industry is in this watershed. The project is a multi-year inter-agency project with State and federal agency support and funding.

Greenbrier Valley Hydrologic Unit Area Project - This project is one of 74 hyrologic units across the nation chosen for intensified educational, technical assistance and cost sharing programs where agricultural non-point pollutants significantly impact water quality. One part of this ongoing Federal Demonstration Project was the implementation of an Integrated Crop Management Program (ICM). The goals of the project were to reduce nutrient and pesticide inputs without impairing farm profitability. This challenge was accomplished with the use of sound crop production programs that included field scouting, soil sampling, spring nitrogen tests, manure analysis, nitrogen credits from legumes, crop rotations and timely recommendations to the cooperating producers. The program crops are field corn and alfalfa. A total of 877 acres have been in the program since 1990.

Winter Cover Crops - Cover crops are essential for reducing water runoff, erosion and nitrogen leaching from manure application in highly sloped, mountainous regions. Cover crop growth and survival was dependent upon region of the State. Southern location ground cover ratings were appreciably higher in 1993 than in 1994, apparently due to the severe cold occurring during January 1994. Severe cold and freezing temperatures tended to uproot and kill plants. The potential for successful cover crop establishment when planting late in West Virginia following maize harvest is highest with cereal species of crops. Late season legumes have little chance for survival unless a system for sowing into standing maize during early September is developed. Ryes tended to survive and perform well regardless of the initial N concentration. Additional N application at the time of sowing increased dry matter production (and likewise ground cover) only in soils with low initial N concentration. Regardless of the cover crop, less ground cover and dry matter will be produced when sown late in the season as compared to other research conducted on crops sown earlier.

WEST VIRGINIA (Continued)

West Virginia University - Morgantown

Recycling Newspaper for Mulching Vegetable and Small Fruit Crops - Studies on utilizing old newspaper (ONP) to mulch vegetable and small fruit crops began in 1992 as research and on-farm demonstrations in a cooperative effort between Extension faculty and producers in Mercer, Pleasants, Mason, Summers and Mineral counties. Additional counties were added in 1993. Chopped and shredded newspaper was applied as mulches in test plots for various crops. The mulch provided good weed control for most weeds. Soil temperatures stabilized at a lower level with newspaper mulch than with plastic mulches and no mulch. Available soil moisture was retained better with newspaper mulches. Tomato blossom end rot was much less with newspaper mulch than with plastic mulch and no mulch. Newspaper mulch has resulted in cleaner fruit, better quality and higher yield.

Nutrient Management for Poultry Producers - Seven meetings were held during the spring of 1994 throughout the poultry producing area to discuss the topics of nutrient management and water quality initiatives. The primary focus was the concern about poultry manure and how to maximize the nutritive value through management of the poultry litter. Voluntary guidelines for managing poultry litter and dead bird composting were drafted and distributed to all poultry producers.

Sustainable Agriculture - Sustainable agriculture in West Virginia effectively shares program components with several other Extension initiatives. Water quality, waste management and integrated pest management initiatives are examples of this program sharing with sustainable agriculture. The program involves the following: workshops, seminars, newsletters, fact sheets, resource manuals, farm field days and demonstrations, consultation and in-service training.

CONTACT:

Art Selders
2078 Ag. Sciences Bldg.
West Virginia University
P.O. Box 6108
Morgantown, WV 26506-6108
Telephone: (304) 293-5539

Fax: (304) 293-6954

Electronic Mail: selders@wvnvms.wvnet.edu

WISCONSIN University of Wisconsin - Madison

SMALL FARM ACTIVITIES

The first in our publication series is "Managing the Farm", the logo of which states that it pertains to "Farm Business and Financial Management for Full-time and Part-time Farmers". The circulation is about 2,100 and while most readers live in Wisconsin or the Midwest, we have readers in every state in the country.

The second is a program conducted by Professor John Cottingham at the University of Wisconsin-Platteville. He works with farmers that produce and sell horticultural food crops in roadside stands or in farmers' markets. He conducts workshops for them, and also edits a newsletter. He can be reached at: (608) 342-1392.

CONTACT:

William Saupe
University of Wisconsin
Dept. of Agricultural Economics
Room 422, Taylor Hall
Madison, WI 53706
Talaphana: (608) 262, 9480

Telephone: (608) 262-9480 Fax: (608) 262-4376

Electronic Mail: saupe@ae.agecon.wisc.edu

WYOMING University of Wyoming - Laramie

SMALL FARM PROGRAMS

What is W.I.R.E.?

W.I.R.E. stands for "Western Integrated Ranch/Farm Education, a concept of management which provides practical tools for integrating management of the physical, biological, financial and human resources of agricultural operations.

How does W.I.R.E approach management?

W.I.R.E. emphasizes the process of management—setting goals, priorities, making decisions, planning, budgeting, keeping records and performing evaluations with personal goals and optimization in mind rather than particular production technologies.

The process begins by setting goals, which provides the manager with a clear focus on what he/she wants to accomplish through the operation and a view of how it can be done. Managers also need a thorough analysis of where they are and what they have to work with—a thorough inventory of the ranch's current status—its physical and financial resources, the operator's management skills, etc. This is done at the more general or strategic level of management.

Once the operator has a clear picture of where he/she is and where he/she wants to go with the operation, W.I.R.E. provides the planning and decision making tools for how to get there. At the tactical level of management, the operator becomes much more specific about what enterprises the operation will have, what technologies it will use, what changes will be implemented, what it will cost in time, labor and dollars and what the expected results are. Serious analysis of how enterprises relate to each other and what the desired set of enterprises might be in the operation is also carried out.

Finally, management plans have to be implemented. W.I.R.E. deals in detail with the practical, on-the-ground, how-to-do-it questions. At the operational level of management, the operator decides the specifics of how, when, and by whom the management plan is to be accomplished, and how it is likely to impact his/her financial situation. The operator is also provided information on how to monitor the various resources and respond to changes in a positive, pro-active way. W.I.R.E. gives managers the tools to understand the relationships and interactions of the major ranch resources like soil, water, rangeland, crops, livestock, wildlife, finances, human creativity and labor. All of these resources are assessed and made to "flow" together, much like the familiar "cash flow".

WYOMING (Continued)

University of Wyoming - Laramie

Who developed the W.I.R.E. Program?

The W.I.R.E. course has been specifically adapted for Western producers from Total Ranch Management, a course developed by the Cooperative Extension Service in Texas. A team of Wyoming Extension specialists and agents spent a year modifying and fine-tuning the excellent framework developed in Texas. How is the W.I.R.E. course taught?

The W.I.R.E. course is team-taught by the agents and specialists who produced the W.I.R.E. course materials. A detailed, six year case study, based on an actual northeast Wyoming ranch illustrates many of the concepts and specifics of the management process. Participants will be able to use or adapt many of the planning, record-keeping, and analysis tools from this practical case study to their own operations.

While course content includes some formal presentations, its emphasis is on "hands on" work in small groups or as individuals, with practical problems in agricultural management--some of which may involve financial calculators and computers. Two afternoon field trips are included in the course. Technical presentations will concentrate on the options used in the case study. The instrumental team is dedicated to teaching the philosophy and process of good management, as well as technical knowledge about various resources.

In addition to the case study ranch materials, a reference handbook covering each major ranch resource is provided. These materials include technical/scientific information regarding the management of the resources and their use in agricultural operations.

CONTACT:

John Hewlett
University of Wyoming
P.O. Box 3354, University Station
Laramie, WY 82071

Telephone: (307) 766-4377 Fax: (307) 766-3379

Electronic Mail: hewlett@uwyo.edu



